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A MOTHER'S FAITH.

Wilhelm of Germany, we shall meet
In God's good time at His judgment seat!

Your hands will be dyed with a crimson stain,
Your eyes will mirror a worldwide pain;
The palefaced wraiths of each dead ship's crew
Will be patiently waiting there for you;
The souls of the mothers, the sweethearts, wives,
Whose hearts you broke when you took those lives—
They will all be waiting to greet you when
You are face to face with their murdered men.

Stripped of your power and all alone,
Standing at God's own great White Throne;
Waiting for judgment, as judged you'll be—
A judgment to last through eternity.
With the ghosts of women and children, too,
Tortured and starved and slain by you.
Oh, I would not want to have God judge me
As He'll judge Wilhelm of Germany!

Wilhelm of Germany, we shall meet
In God's good time at His judgment seat!

—E. D. GIBBS,
In New York Herald.

PAPER MANUFACTURERS HALTING ENLARGEMENTS OF PLANTS BECAUSE OF PROPOSED POSTAL TAX ON NEWS-PAPERS AND MAGAZINES.

CHARLES F. ROTH, one of the managers of the National Exposition of Chemical Industries, in a letter to the MANUFACTURERS RECORD gives some important facts as to how the proposed postal tax is already affecting paper manufacturers. Mr. Roth's letter follows:

Editor Manufacturers Record:

I know it will interest you to learn in connection with the proposed additional tax legislation on publications mailed to distant points that the effects will be more far-reaching than merely the suspension of some papers.

My attention has been centered by a manufacturer of paper-making machinery upon that industry. Some paper manufacturers were increasing their capacity to meet the demands, and now when Congress threatens, by additional taxation, to cause the voluntary suspension of some publications, which, in turn, reduces the demand for paper, these paper companies found it necessary to suspend their further construction and purchases of materials and machinery. In some instances all work has been suspended and workmen thrown out of employment.

There is now much finance invested in these plants, and the stoppage of work means their unproductiveness, while interest charges continue. The paper industry is second in amount of invested capital to the steel industry, and its products are equally important. The needs of the paper industry require material from so many other industries and much machinery from plants that turn out a goodly portion of paper-making machinery as well as of other kinds that any legislation that affects the paper mill reacts on many other industries, some of which, depending so largely upon the paper manufacturers, would find their other means of outlet insufficient to continue their operation.

CHARLES F. ROTH.

The Nation's Struggle As Seen from the Inside.

At a conference in Washington on Friday last between members of the Cabinet and of the Council of National Defense with the editors of the leading business publications of the country there was a discussion which to those not familiar with the progress of events during the last two years would have been most illuminating, and even to many of the business editors gathered there many of the facts presented were doubtless entirely new.

Secretary Franklin K. Lane, in referring to our entrance into the war, stated that for two years we as a nation had entirely failed to see that Germany's fight was the fight of autocracy against democracy. We had looked during that period with horror upon the treatment of Belgium and the ruthless warfare in France, but we had not realized our own individual relation to this war nor grasped its meaning, for we had not understood that it was Germany's war against us and against all democracies, just as much as it was against France and Belgium and England.

It is a sad commentary upon the life of this country that our people did not see this situation and were, as Secretary Lane said, for two years blind to the real truth. Those who were trying to arouse the country during that period to a realization of this situation were regarded by many as visionary and as merely attempting to create a fright, whereas, with a realization which the public and the men in public life did not seem to have, they were fighting for the nation's life.

One of the most interesting of all the addresses made was that of President Frank A. Vanderlip of the National City Bank of New York in discussing how the war must be financed. Looking to the possibility of a long war, he stated that it could not be financed on the earnings or profits of the country previously made, because they had already been invested, but that the war must be financed by the savings of the people brought about by war conditions. The whole country, said he, from the poor to the rich, must learn as never before to borrow in order to invest in Government securities and save during the next year or two in order to pay these borrowings. It is out of the savings of the poor and the rich alike that the expenses of the war must be provided, for they cannot be raised out of the earnings made in the past, all of which have practically gone into fixed capital in industries and railroads and other operations.

It was Mr. Vanderlip's urgent advice, therefore, that all the people, whether they had ever been accustomed to borrowing or going into debt in the past or not, should now go into debt in order to do their part through the purchase of the Liberty Loan bonds, for in no other way can the Government finance this great undertaking.

It should be borne in mind that these bonds do not become a fixed investment upon which the buyer could not realize. They can at any time be sold. There will be a broad market for them, and many of the business institutions of the country will be ready to accept them at any time in payment of debts for household and other expenses or for larger purchases. Thus the man who puts his money into a Liberty Loan bond will always have that money immediately available for any emergency which may arise.

In view of the discussion aroused by the statements made on Friday last at the annual banquet of the American Iron and Steel Institute in regard to opposition to building wooden ships, it is interesting to note that Secretary of Labor Wm. B. Wilson stated that when the plan of building wooden ships was projected the question arose as to the supply of ship carpenters, but that in three days the Depart-

ment of Labor had been able to register the names of 20,000 shipwrights.

It should also be understood in discussing the question of wooden-ship building that unskilled laborers and carpenters, under the direction of skilled shipwrights, could rapidly be made available for doing a large amount of work that would be required.

Secretary Wilson, in discussing the labor shortage on the farms, stated that the most hopeful phase of the work which he has been able to develop has been a plan to urge the manufacturers in the wheat-growing States to shut down their plants during harvesting time, making their annual repairs at that period, and permitting all of their laborers to go on the nearby farms and help harvest the wheat crop.

As we view the proposition, this is not feasible except to a very limited extent, and the enthusiasm with which Secretary Wilson put this forth as a solution of the problem seems to us an indication of weakness in his plans for increasing the farm-labor supply. At the present time manufacturers generally are crowded to the utmost limit of their capacity and are as short of labor as are the farmers. Many of their employees would be wholly unfitted for farm work even if they were given the few weeks of vacation expressly for that purpose, and we believe that the Department of Labor, if it is going to materially assist the farmers, must find some way to supplement this scheme. A few men, of course, would be available from the factories, but it is not merely during the harvesting season when increased farm labor is needed. In every part of the country farmers are hampered by the shortage of labor, and they cannot plow and seed and cultivate the amount of land that is needed to be put into cultivation to prevent us from having next year a food crisis of the most serious kind unless some new way can be devised to bring about a larger supply of labor.

Under the authority granted by Congress, Secretary Wilson has given permission for the incoming of Mexicans to work on the farms in the Southwest, but under the law he has no authority to permit the bringing into this country of Chinese laborers for that or any other purpose. The question of securing Chinese labor to meet the shortage on the farms may yet become a very acute one.

Mr. Herbert Hoover, who has probably been in closer touch with war conditions in Europe than any other American and who knows the horrors of the situation as few others do, took the ground that there must be a mobilization of the entire resources of this country as well as a mobilization of the American people themselves. His idea is that by proper conservation of food we shall not be reduced to the conditions in food regulation prevailing in Europe, but that there must be a great increase in food production and in food conservation in order to enable us to care for our own food requirements and to help to care for the Allies, whose success depends upon our ability to feed them, for starving nations cannot fight.

Some interesting facts in regard to the amount of ammunition used in the present war were given by Mr. Frank Scott, chairman of the Munitions Board, Council of National Defense, who referred to war as representing four M's—Men, Metal, Machinery and Money.

At Gettysburg the Union Army had 310 cannon engaged for three days, which during that time fired 300,000 rounds of shot. The same number of guns of modern construction could fire the same amount of ammunition in seven minutes.

The amount of ammunition taken by Sherman on his march to the sea, and intended to last him from October to January, would, with the same number

of 3-inch guns, or the French "75's," be fired in ten minutes.

These are the conditions which must be faced when we remember the rapidity of fire and the vast number of guns, large and small, now employed. Old ideas of war based on the experience of this country in the Civil War or in the Spanish War are all swept aside in a moment by the terrific big-gun fire, before which all the fighting of the ages passes into utter insignificance.

Probably to many the most interesting and appalling statement made was that by Dr. Franklin H. Martin, in charge of medicine and sanitation, of the Council of National Defense, who told of the hardships of the doctors on the battlefields, and stated that the proportion of doctors who were killed or died as a result of the war was larger than the proportion of men killed who were engaged in trench operations and second only to the proportion engaged in the air service. These doctors and the ambulance drivers and stretcher bearers must constantly be on the battlefield and live under a strain matching that of the men on the firing line.

In a recent engagement the entire medical corps, composed of 267 doctors, were killed by a mine explosion and literally blown to pieces. As a result of the death of this entire medical corps for the men engaged in that battle, 5000 wounded men were left on the battlefield for 72 hours without any medical attention whatever until physicians and helpers could be brought from another sector of the front. These are a few of the many things discussed by six members of the Cabinet and by five Government Department heads and five members of the Council of National Defense.

The dominant thought throughout the entire day was the tremendous seriousness of the war upon which we have entered, the probability that it would last for some years, and the certainty that it would tax the resources in men and money of the nation. To all of these facts the country must be aroused or we shall fail to do our part.

We wish it were possible to convey not only to our readers, but to every man, woman and child in the country, the seriousness of the situation as so strongly presented in the dozen or more earnest speeches made by the members of the Cabinet and the War Council. No one could listen to these addresses, which occupied the entire day from early morning until late afternoon, without realizing that Washington, however many unnecessary and unwise delays there may be in Congressional action or in other work, is tremendously in earnest and is somewhat grasping the magnitude of the task. Five of the leading railroad men of the United States, for instance, without any pay from the Government, are working morning and night in Washington to co-ordinate the whole railroad system of the United States with a view to cutting out any possible waste and securing the largest efficiency from existing facilities in track, cars and locomotives. Under the leadership of these five men the entire railroad system of the country has been mobilized and is practically being operated or will be as though it were one road, thus making every car and locomotive do the utmost service possible.

Many of the foremost physicians of the United States, men whose earnings have run in some cases from \$50,000 to \$100,000 a year, are giving up homes and practice and enlisting in the service at the salaries of \$2500 or \$3000 or thereabouts paid to officers of the rank to which they are being assigned, while others of smaller incomes are, with equal patriotism and self-sacrifice, offering their services. Already 20,000 American physicians have been enrolled for service abroad, and a good many have already gone. These will go into the hospitals and trenches and come in touch with the whole situation abroad before our soldiers go over. The full number of physicians will go with each instalment of troops that go abroad, but as the troops are landed the physicians who have gone on ahead and gotten experience on the battlefield will take charge, and the physicians who have just come over will take their turn at the military hospitals. In this superb work of the physicians, whether they give up the princely incomes of some or the all of others, leaving their homes and risking their lives in a service which, as already stated, is more dangerous than the trenches themselves, these men are giving an illustration of

the American spirit in its highest development of devotion to duty.

One interesting phase of the medical work is that when it became necessary to prepare for equipping the medical corps with instruments it was found that nine-tenths of the surgical instruments used in this country had been made in Germany, and it was, therefore, necessary to adopt new and standardized instruments so that the entire service might be equipped in this way. In every branch of this work relating to the army and the navy reorganization and standardization have been necessary.

It has looked sometimes as though we had not accomplished much, and yet as we recognize that we have been at war less than two months, and realizing the impossibility even in private business to organize, construct and create great enterprises off-hand, we can gain some conception of the responsibility that is resting upon those in authority and the men who have been called to aid them.

The most gratifying feature in connection with this whole work as seen in Washington is the character and standing of the business men who have been called to co-operate with the nation.

It is to be regretted that some of the foremost of these men, the men known the world over for their marvelous business capacity, are not in the Cabinet with complete authority to decide and to do things instead of being merely members of advisory boards without power to act. We believe that President Wilson would render the nation and all civilization a service of inestimable value if he would fully recognize that at this crucial hour in the life of the world that he should have in his Cabinet the brainiest men in America, regardless of their political affiliations, men in whom the country has absolute confidence.

There is a feeling abroad that the Cabinet is not built of the timber which as a whole can bear the weight of a world war. President Wilson is probably in a better position than any other man to judge as to the real ability and size of the Cabinet timber around him, and if in an intimate study of the situation he has any doubt whatever as to his having the very best men that live in this nation, no personal feeling, no party interests, should for a moment cause him to hesitate where millions of lives may be the issue.

PREPARE NOW FOR NEXT YEAR'S FOOD SUPPLY.

A CRUCIAL time in the world's food supply will be next year and the year after next. All that we are doing today looking toward increased food conservation is merely a preparation for what must be done for next year's crop and for the year to follow, and perchance for years after that. The thought of the whole nation should be centered upon plans for making certain a larger food production next year than it will be possible to get this year. We started too late this year to accomplish the largest results, but we must begin now to prepare for the years to come.

Congress should immediately take some action that would establish a minimum price for staple food supplies in order that farmers might be justified in purchasing the agricultural implements and the fertilizers and engaging the labor necessary to increase the acreage under cultivation. Action should also be taken that would secure an ample supply of seed wheat so that an arrangement might be put into effect by which we could this fall add at least 50 per cent. to the wheat-growing acreage of the country. Unless we can increase the winter-wheat area by 25 to 50 per cent. we shall fall very short of the needs of the hour in our own country and in the world. We must consider these questions from the standpoint of a possibility of bad weather cutting short the yield of all crops, and, therefore, we must look to the enlargement of acreage, to the selection of the best seed that can be obtained of all grain and other food supplies, and cotton as well, and we must make sure that an available supply of seed will be obtained, for otherwise the high prices of grain might tempt the farmers to sell off their entire crop, as they are, to some extent, doing with their livestock in selling off much of their breeding stock which should be kept, tempted by the high prices for meat and at the same time moved thereto by the high cost of feed.

The business people of the country have been earnest and vigorous in trying to arouse a broad interest in the enlargement of our food crops this year, but the time was limited and the work was undertaken too late, and we must now begin a campaign with still greater vigor, looking to the enlargement of the land under cultivation in food crops for next year, and not a moment should be lost in beginning this campaign. It behooves the Government to take the lead in this, and Congress should promptly guarantee a minimum price on the great food staples, and this price should be high enough to justify the farmers in undertaking to raise more food supplies even with the high prices of labor, of fertilizers and of all other things which add to the burden and the cost of farmers' work. We do not believe it at all wise that for the moment consideration should be given to fixing a maximum price. The question now is to fix a minimum price high enough to make certain that the farmers can draw back into farm work a sufficient amount of labor to justify them in increasing their acreage and in planning for larger operations next year. If this should be put into effect, much new land would be cultivated and many people not now engaged in farming, but who are familiar with farm operations, would go back into farm work, and landowners everywhere would begin now to plan for next year's operations. Congress and the Administration will make a serious mistake if this work is not taken up immediately in order that the machinery for working out this plan may be created.

THE IDLERS MUST GO TO WORK.

ON April 19th the MANUFACTURERS RECORD suggested that Southern Legislatures would probably find it wise during the war to adopt measures which would make idleness on the part of the poor or the rich illegal and compel everybody to work.

West Virginia is the first State to follow this suggestion. It has passed a law penalizing idleness, which is to become effective within thirty days. West Virginia has thus shown that it has no room, as the Charleston paper states, for an industrial slacker any more than it has for a military slacker at a time when the nation's life is in jeopardy.

The Bluefield Telegraph says that "the law will create more kicking and do more good than any law since the State went dry," and it expresses the belief that it will increase the efficiency of the State.

The Parkersburg State Journal says: "It will be far more effective in the long run than temporary punishment or fine or the application of enforced labor; it will be the development of public sentiment that follows. Let the people be taught that idleness itself is a disgrace, and let the public be intolerant of loafers. It will merely afford the opportunity to the community to rid itself of industrial slackers, and with it and the hostility to aiding forms of criminal idleness we can make it mightily uncomfortable for parasites."

If other Southern States will pass similar laws, it can be made not only uncomfortable, but unfashionable for any man, be he rich or poor, to remain in idleness during this period of fearful war.

It is a war measure, and as such there is full justification for it, but its effect in drilling the people into the regularity of work might extend for many years after the war. There is enough time wasted in the country and in towns and cities by people who are able to work, but who do only a small amount of work or none at all, to greatly increase the output of all the farms and factories of the South, notwithstanding the large number of Southern men that will be drawn into the army.

The productive capacity of the men who go into the army can be fully taken up by making the idlers do their share. The slacker on the farm or in the factory, in the office or elsewhere, who, without any sense of responsibility to the country, wastes his time, is a drain on the nation, and he should be forced to work if he is not available for the army. He must be a fighter or a producer to the utmost extent of his ability, and he must work as a producer as vigorously from early morning until late evening as the soldier in training, or else he is failing to do his part.

Which will be the next Southern State to follow the lead of West Virginia?

The German Character and Its Relation to Our Life.

THE dual personality of the Germans; the cruel, inhuman, bestial side of them, against which all civilization is compelled to battle for existence, and the forces which have sunk a nation's ideal from Christ to Odin, are presented with uncommon force and frankness by Edward Lyell Fox, a magazine writer of note, in a recent issue of Illustrated Sunday Magazine.

In this article, entitled "What We Are Fighting Against—Prussianism and What It Means," Mr. Fox somewhat prepares one for the horror of the fate that has been met by the girls and women of conquered Belgium and France, for what consideration can be expected for an alien race when the Germans have been taught, among their own people and in times of peace, that natural inclinations are never to be curbed? Without any regard for the virtue of their own women, how can the soldiers of Germany at war be expected to consider the women of their enemies as other than legitimate prey, as a matter of course.

The right of anyone to make so serious a charge might be challenged were the facts as to Germany's changed standards not so fully established, so clearly and unhesitatingly recorded in the German literature of the day, as Mr. Fox points out, while conditions in the countries where German troops have been are reported by American doctors who have been on the ground, and these charges admit of no denial—If, indeed, anyone is concerned in making a denial. It would seem hardly likely that a nation which has sunk to barbarism would take the trouble to impeach the truth of any chronicles of its infamy that might appear.

Unless we have grown callous by too frequent contemplation of the ruthless nature of Germany's warfare, there is matter in Mr. Fox's article to stir the American spirit to a keener appreciation of the nation's peril than is now in evidence. With Germany triumphant over England—and without our vigorous and whole-hearted aid England will be beaten, don't make any mistake about that—Canada would unquestionably be taken as indemnity by Germany, our own country invaded, our cities and towns ruined, our womanhood polluted and our men enslaved.

From the article by Mr. Fox some extracts are presented herewith.

After speaking of the Germany of popular belief and esteem, Mr. Fox declares: "This is the Germany that gave the world Kant's 'Critique of Pure Reason,' Beethoven's 'Ninth Symphony,' Goethe's 'Faust,' and the fairy tales of Grimm; that gave Humperdinck, Schubert, Schuman, Schiller, Heine, Hauptmann, Brahms, Mozart and Wagner. It is the Germany that President Wilson had in mind when he said, 'We have no quarrel with the German people.' We are at war with the thing that caused the symbol of Germany to change from the absent-minded professor to the military bully.

"The German Empire came into being by the war of 1870," Mr. Fox continues. "Then the Germans were people that the world loved. They were known for their music, for their songs, for their heavy philosophy and for Goethe. They drank quantities of beer, were very religious, were very sentimental and very clumsy. That was the Germany that could not conquer the world. To do that was not in the minds of the people. Nor was the physical prowess of its men suited to conquest. They ate too much and exercised too little. They thought too placidly. They were steeped in beer, Christianity and sentimentality.

"The times changed. Under Bismarck there came into their official lives, into their intercourse with other nations, treachery. That began the day when Bismarck forged the Ems telegram and used it to inflame France and the German people into the Franco-Prussian war. The success of that war created a period of band braying, flag waving, roaring choruses of song and the defiant thumping of stone mugs on table tops. Bismarck's phrase, 'We Germans fear God, and nothing else in the world,' caused the Teuton chest to expand. It was expanding when Wilhelm II came to the throne.

"Now, the Kaiser in his youth studied the socialistic systems of Schmoeller and Muller. He inherited a country that was seething with socialism. The

utterances of Karl Marx were making Socialist converts by the thousands. For every Socialist that was put in jail, five more were made. So the Kaiser and Bismarck got together and they evolved a fundamental for Prussianism—which is Monarchical Socialism. Bismarck's recipe was 'Give the people a soft bed and a full belly, and they won't think too much.'

"The clique around the throne made the German people comfortable, so that they would love their country. Loving their country, feeling it something worth while preserving, the people were in a mood to shed their blood for it to preserve it. It was the game of the war lords of Germany to build the State up to an amazing point of efficiency—for war; to make all the men in it who could be made so physically fit by compulsory gymnastics, perfect specimens of manhood—more valuable soldiers. It was their game to encourage science to such a point that the most wonderful machinery and chemical discoveries would be achieved—for purposes of war. And it was their game to take the sentimentality out of the German people and make them as a unit ruthless and hard, capable of any act against humanity. And they succeeded."

The influence of Nietzsche's book, "Thus Spake Zarathustra," written in the early nineties, is traced by Mr. Fox, the spirit of which book is revealed in these sentences it contains:

"A new beatitude I give unto you. Be hard." "You tell me that a good cause hallows even war. I tell you that a good war hallows any cause." "And thus I would have women and men; the one for bearing children, the other for making warfare."

"In this book the German people were told that only the strong were fit to survive," continues Mr. Fox. "They were told that the weak should perish, and that they should be helped to perish, for the weak were only holding back the progress of the world. And the young German giant sagely nodded his head and said: 'That is right; it is our duty to help the weak perish.'"

"The book also held that any natural inclination was all right, because it was stimulated by nature, and that anyone who curbed such inclination was weak and unfit. And so Berlin changed into one of the most immoral capitals in Europe, and so illegitimate children were made legal by the Imperial State. That is to say, their production was encouraged. It meant more soldiers for the Kaiser and his war lords. And they saw to it that the book was thoroughly read by the educated classes."

"In New Germany the glorification of life is death—for the Kaiser. Now that theory is the spirit of the officers' corps of the German army. It was instilled into them by the philosophy of Friedrich Wilhelm Nietzsche.

"An English officer told me: 'We were in a section of trench opposite the Saxonian troops. On Christmas night some of their men crept over the parapet and were met between the trenches by some of our men. All exchanged food and drink, and had a good time. Then the Saxonians went back. We learned afterwards, from prisoners, that the Saxonians who had done that were executed by the command of their officer.' 'Be hard,' wrote Nietzsche, and the officer was.

"Other writers were used by Prussianism—Treitschke and Bernhardi. They both extolled war as the greatest blessing that could come to the German nation. They both brewed hate for England. They both conveyed a message to the German people, implanted an ambition for a German Empire that would extend over the whole world. And many of the Germany people took these things seriously, and were glad when war came. I know now that their military caste had the war all figured out. They would go to Paris. In Paris they would dictate terms of peace. England would be next on the list, then we could lift the Monroe Doctrine or else receive the attentions of the German Navy, which outnumbered our own two to one.

"It was easy to get the German nation into war, the purpose of which the mass of the German people

knew absolutely nothing about. I saw how Bulgaria was tricked into going to war, and I believe I know now how most people can be tricked into war. A clarion call: 'You are attacked! Defend your homes!' Even if you are the aggressor, you can often make your people believe you are not. Why, the whole German nation united on a war of defense! That is what the Kaiser and the newspapers told them the war was.

"You have heard of the Kaiser referring to 'Unsere alter Deutsche Gott'—'Our old German God.' What does that mean? Is he privately tagging the Almighty for his own? Not that. When a leader of Prussianism speaks of 'our old German god' he does not mean the divinity of Christianity or Judaism. He means a barbaric god. He means the god of old barbaric Germany.

"Friedrich Wilhelm Nietzsche, the philosopher of Prussianism, wrote: 'And ye had heard men say, blessed are the peacemakers; but I say unto you, blessed are the warmakers, for they should be called, if not the children of Jehovah, the children of Odin, who is greater than Jehovah.' Odin was the mythological god of barbaric Germany.

"Again, when Bismarck distorted the famous Ems telegram and brought about the Franco-German war, the barbaric spirit of Odin was abroad. After Bismarck had explained his trick to convert the telegram from a harmless notification into a 'red rag to the Gallic bull,' he propounded the coming war to his two military geniuses, Moltke and Roon. I quote from the 'Reflections and Reminiscences of Bismarck': 'They had suddenly recovered their pleasure in eating and drinking, and spoke in a more cheerful vein.' Roon said: 'Our God of old lives still.'

"Odin, diety of barbarism—'Our God of old'—was again amuck in Prussia.

"Now as to those things which the world could not grasp, which seemed all out of key with the German character as the world knew it—the terrible things of Belgium and Northern France, which I, too, did not believe until I understood the spirit of Imperial Germany—they came under the dual personality, which is another thing of Prussianism. I believe that it is in the German soldier today in a Belgian village to take a Belgian boy and give that boy some of the food from his own ration; that it is in the German soldier to take a baby and dance it on his knee, liking the baby and perhaps thinking of his own child back home; that it is in him to feel quite sentimental and perhaps blubber. I believe it is in that same soldier, if his officer orders him to, to stand in a firing squad and shoot down every living being in that same village. It is in accord with the dual personality of Imperial Germany. Take those men out of the war machine, get their minds out of Prussianism and they are entirely human.

"Bismarck's ideas, worked out by Wilhelm II, brought this curse of Prussianism to Germany. Now waiting for the throne of Wilhelm II is a man far more dangerous than his father, utterly poisoned with Nietzschean philosophy, detesting humanity, totally selfish, filled with ego that almost approaches madness, shrewd and cruel—his Imperial Highness Friedrich Wilhelm. Under him Germany would be more intolerant than it is even today. It is that possibility that we are fighting against. It is that which has made us go to war—not against the German people, but against that little group around the throne who poisoned a natural, peace-loving, sentimentally-inclined nature and art-loving people with Prussianism."

Mr. Fox is wrong in his last sentence. We are fighting the German people. It was German militarism at the beginning. Now it is all Germany, for all have drunk deep of the poison that first killed the moral fiber of the military leaders and has now put its deadly stamp upon the moral character of the nation. Don't let us for a moment forget the change. President Wilson in his memorable war address made the same mistake Mr. Fox now makes, and said we were not fighting the German people, but German militarism. That might have been true two years ago. It is not now true. The two are one and the same, and let us not forget that the German people as a people are united to do to us exactly what they did to Belgium.

To the MANUFACTURERS RECORD there is nothing

new in this presentation by Mr. Fox of the duplicity of the German nation. We believed that from the very beginning of this war we understood this situation, and it is because that from the beginning our views have been in exact accordance with the statements which Mr. Fox now makes and because from the day that war was declared we have felt as deeply as it was in our power to feel that this was the final great world war of autocracy against democracy; that its utter ruthlessness was for the express purpose of frightening the world and compelling the world to accept German rule rather than to run the risk of that awful ruin which has marked not only the material life, but the women and children and the man life of Belgium and the overrun portions of France, that the MANUFACTURERS RECORD, though it knew it was going contrary to the views of many of its readers, unceasingly sought to arouse this country to our certain danger and to our certain destruction unless we were saved by the Allies from being overrun by Germany.

For nearly three years the Allies have saved us. It is now up to us to help to save the Allies, and in doing so to save ourselves. Unless Germany be defeated in Europe, Germany will make war on us on our own shores as ruthlessly as on Belgium and France. We may rest assured of that, and with tens of thousands living in this country ready to serve her purposes.

THE STEEL PRODUCTION OF THE UNITED STATES.

OUR steel industry during the last two years has had a remarkable growth, but if we are to be able to do our full part necessary to wrest victory for civilization against barbarism, and to furnish the steel needed for this country's development and upkeep and for the reconstruction of devastated Europe, we must greatly increase our facilities for the manufacture of iron and steel.

In the United States the total production of steel ingots and castings, according to statistics compiled by the American Iron and Steel Institute, amounted to 42,773,680 gross tons in 1916, which was 19,260,650 tons, or 82 per cent., more than the gross tonnage of 23,513,030 produced in 1914, the first year of the war. The total production of last year was even greater by 11,472,806 tons, or 37 per cent., than our highest pre-war output of 31,300,874 tons, recorded in 1913. In only one other year did our ingot and casting production surpass the figures for 1913, and that was the 32,151,036 tons produced in 1915; but the 42,773,680 tons made last year was larger by 10,622,644 tons, or 33 per cent., than the 1915 output. This tremendous increase in our steel production has been one of the main contributing factors to the present prosperity of the country.

The following is a tabulation of the production of steel ingots and castings by processes beginning with the 1909 production, as compiled by the American Iron and Steel Institute:

Years.	Open-hearth.		Total.
	Basic.	Acid.	
1909.	13,417,472	1,076,464	14,493,936
1910.	15,292,329	1,212,180	16,504,509
1911.	14,685,932	912,718	15,598,650
1912.	19,641,502	1,139,221	20,780,723
1913.	20,344,626	1,255,305	21,599,931
1914.	16,271,129	903,555	17,174,684
1915.	22,308,725	1,370,377	23,679,102
1916.	29,616,658	1,798,769	31,415,427

Included in the 29,616,658 tons of basic open-hearth steel ingots and castings produced in 1916 are 3,436,457 tons of duplex steel ingots and castings which were made from metal partly purified in Bessemer converters and finally purified in basic open-hearth steel furnaces, against 1,781,491 tons in 1915, an increase of 1,654,966 tons, or 92.9 per cent. In 1914 the production was 835,690 tons, and in 1913, 2,210,718 tons. Also we produced alloy steel ingots and castings to the amount of 714,357 tons in 1913, 646,953 tons in 1914, 1,021,147 tons in 1915 and 1,362,615 tons in 1916.

In 1916 the production of all kinds of iron and steel rolled into finished forms (including blooms, billets and axle blanks rolled for forging purposes and semi-finished products which were rolled for ex-

port in that year) showed an increase of 7,987,465 tons, or nearly 33 per cent., as compared with the output of 1915, and 14,010,193 tons, or 76 per cent., compared with the output of 1914.

In 1914 the South produced 1,331,314 tons of finished rolled iron and steel; in 1915, 1,600,480 tons, and in 1916, 2,540,218 tons. The output of Southern rolling mills last year was 1,208,904 tons, or nearly 91 per cent. greater than was produced in 1914, against the total increase for the whole country of 76 per cent., and about 75 per cent. increase for the rest of the country outside of the South.

The percentage of growth shown in the production of Southern rolling mills is not surprising to anyone familiar with the vast potentialities for iron and steel making in the South, and we do not hesitate to predict that because of its abundant supplies of ore and coal and fluxing materials, the three essentials in the manufacture of iron which are often found in the South within rifle shot of each other, this section is to soon receive full recognition of its advantages for iron making and be developed on a scale never before attempted.

The following table gives the production of finished rolled iron and steel by States, gross tons, from 1914-1916, inclusive:

States.	1914.	1915.	1916.
Maine, Massachusetts.....	139,179	184,273	217,589
Rhode Island, Connecticut....	55,265	66,455	75,111
New York.....	681,655	994,334	1,322,988
New Jersey.....	143,357	181,017	255,739
Pennsylvania.....	9,070,055	11,992,840	15,428,563
Delaware, Virginia.....	28,705	25,647	37,337
Maryland.....	170,723	220,725	285,708
West Virginia.....	456,108	534,134	777,328
Kentucky, North Carolina.....	151,422	169,571	232,797
Tennessee, Ga., Texas.....	61,229	73,139	103,797
Alabama.....	413,654	556,222	856,445
Ohio.....	3,491,464	4,733,612	5,846,024
Indiana.....	1,512,486	2,104,072	2,919,004
Illinois.....	1,444,270	1,839,964	2,686,674
Michigan.....	11,379	21,518	33,797
Wisconsin, Minnesota.....	119,422	157,575	217,802
Missouri, Okla., Kansas.....	49,473	81,042	150,603
Col., Utah, Wash.....	325,343	356,924	518,043
Oregon, California.....	44,977	49,860	118,634
Total.....	18,370,196	24,392,924	32,380,389

In 1916 there were 109 works in 18 States and the District of Columbia which made alloy steel ingots or castings.

In 1916, 174 works in 25 States and the District of Columbia made steel ingots, against 134 works in 30 States and the District of Columbia in 1915.

In 1916, 230 works in 28 States, the District of Columbia and the Canal Zone, Panama, made steel castings, against 218 works in 27 States, the District of Columbia and the Canal Zone in 1915.

DEATH OF A PIONEER CHAMPION OF COTTONSEED AS A FOOD PRODUCT.

THE death is announced of Mr. J. W. Allison. Mr. Allison was prominently identified with the cottonseed-oil industry, and throughout his active life he had been one of the foremost men of the South in urging the use of cottonseed products as food for both man and beast. He was one of the first men to experiment with cottonseed meal as a

	Bessemer.	Crucible.	Electric.	Miscellaneous.	Total Gross tons
1909.	9,230,783	107,355	13,762	9,185	23,955,021
1910.	9,412,772	122,303	52,141	3,194	26,084,919
1911.	7,947,854	97,653	29,105	2,844	23,576,106
1912.	10,327,901	121,517	18,309	2,853	31,251,392
1913.	9,545,706	121,226	30,180	3,881	31,300,874
1914.	6,220,846	89,869	24,009	3,622	23,513,030
1915.	8,287,213	113,782	69,412	1,527	32,151,036
1916.	11,069,039	129,692	168,918	604	42,773,680

food product, and only a couple of weeks ago attended a meeting of the Interstate Cottonseed Crushers' Association at Dallas, Tex., on which occasion he furnished the MANUFACTURERS RECORD a report of the meeting and recorded the progress that has been made in recent years in the recognition by the country generally of the value of cottonseed as a food product. He had been active in furnishing facts demonstrating the food value of cottonseed and in combatting the strangely popular belief that the South, in devoting itself so largely to cotton production, has neglected its proper share in food production. Statistics which Mr. Allison was diligent in compiling and circulating showed that the food value of cottonseed products for men and animals has a present value of more than \$350,000,000 a year.

RED TAPE.

WILL this Government never learn that the accomplishment of a matter is of greater importance than the specific mode which may be employed to accomplish it? At the present time we seem to be weighted down with a bureaucracy which cares far more for the particular form in which a thing should be done than the accomplishment of the thing itself. That has broken effective action in more than one nation in the last century, has formed the theme for the most powerful story which Balzac ever wrote, and constitutes an ever menacing shoal. The President can perform no greater service to this country than by stamping out, effectually and for all time, this evil.

—Unknown Exchange.

An illustration of the folly of much of this red-tape system in Washington was had a few days ago. The MANUFACTURERS RECORD mails its Daily Bulletin in large envelopes. Under the law, envelopes or wrappers carrying second-class matter cannot have any advertisement on them; but with a view to aiding the selling of the Liberty bonds, the MANUFACTURERS RECORD wrote to the Postoffice, offering to publish, at its own expense, in red, on every one of these Daily Bulletin envelopes the following:

To save itself and civilization, our country is in the world's greatest war. The utmost power of men and money alone can give us victory. Without money, armies and navies will be helpless. Have you subscribed to the Liberty Loan? If not, buy a bond today.

The Baltimore Postmaster was unable to rule in favor of this, and referred it to Washington, and the Washington authorities turned it down, not because of a lack of appreciation of the desirability of having these Liberty bonds thus advertised, but because it was contrary to the rules of the Department, or the law, for advertisements to appear on such envelopes or wrappers.

This offer on our part to carry this wording in behalf of the Liberty bonds daily to thousands of people throughout the country was in one sense an advertisement of the National Government Liberty loan. And yet the National Government is begging the country to use every possible means to advertise the loan. But so narrow is the construction of red tapeism that the Postoffice Department could not even permit the Government itself to get this free publicity of its Liberty loan. This is the kind of law that kills rather than that which gives freedom and liberty.

COTTONSEED OIL PRODUCTION.

ACCORDING to a preliminary Census Bureau report on cottonseed and cottonseed products, 4,380,289 tons of cottonseed were received at cotton-oil mills from August 1, 1916, to April 30, 1917. This amount does not include 14,329 tons on hand at these mills on August 1 of last year, nor the 177,748 tons of seed reshipped. Up to April 30 this year 4,164,801 tons of the total of 4,394,618 tons of cottonseed were crushed, leaving 229,817 tons on hand at these mills April 30, 1917.

The following table gives the amount of cottonseed products manufactured, shipped out and on hand:

Item.	On hand		Produced		Shipped out	
	Aug. 1.	Apr. 30.	Aug. 1 to Apr. 30.	Apr. 30.	Apr. 30.	Apr. 30.
Crude oil, lbs.....	16,807,871	1,288,084,077	1,219,109,489	106,159,892		
Refined oil, lbs.....	221,639,915	1,080,636,014		325,268,739		
Cake and meal, tons.....	179,518	2,038,432	1,985,935	232,015		
Hulls, tons.....	56,656	907,978	846,244	118,390		
Linters, 500-lb. bales.....	15,206	1,210,876	1,601,848	147,701		
Hull fiber, 500-lb. bales.....	18,560	361,469	370,150	410,591		
Motes, grabbats, and sweepings, 500-lb. bales....	2,161	30,416	29,003	42,231		

¹ Includes 4,438,521 and 9,274,024 pounds held by refining and manufacturing establishments August 1 and April 30, respectively, and 25,541,930 pounds in transit to refiners and consumers April 30.

² Produced from 1,161,591,332 pounds crude oil.

³ Includes 15,037,428 pounds held by refiners, brokers, agents, and warehousemen at places other than refineries and manufacturing establishments, and 7,172,636 pounds in transit to manufacturers of lard substitute, oleomargarine, soap, etc., April 30.

⁴ Includes 13,467 bales of linters, 712 bales of hull fiber, and 257 bales of motes, grabbats and sweepings stored elsewhere than at the mills.

Against our imports of cottonseed oil from August 1, 1916, to April 30, 1917, of 7,476,519 pounds we exported 123,879,673 pounds of oil, 480,207 tons of cake and meal and 329,569 bales of linters.

PERHAPS IT WAS FOR THIS CAUSE OUR NATION WAS BORN.

THROUGHOUT the country there runs a thrill of life, of awakened patriotism, taking patriotism in the broadest sense of service to mankind. There is everywhere felt a new sense of unselfish devotion when physicians of princely incomes and others of moderate means are by the thousands giving up their homes to go abroad and endure privations on the meager salaries of the new positions to which they will be appointed and accept risks which, as stated elsewhere, result in a larger proportion of deaths than in any other branch of war service, except that of the aviation department.

What the physicians are doing is indicative of the serious spirit of self-renunciation and consecration which is gradually growing up in the hearts of the people of this country. There will come everywhere not only the spirit of self-sacrifice, of devotion, but of consecration to a higher cause than that merely of material things; and the man who drives the plow, the man who cuts the timber, the man who digs the iron ore or the coal, the man who does anything of a productive character or in any way contributes to the nation's real life will feel that he is doing a creative work in which his strength and ability are a part of the great force which is being developed to save the world from ruin and his own country from destruction.

With all of its voiceless horrors, with all of its unspeakable sorrows, with all of the agony on the battlefield and in the homes of those who will go to the front there is still left much that ennobles mankind and lifts the nation out of sordid thinking into a higher plane of heavenly thinking, where men forget themselves in striving to help others, and where the petty selfishness of little things is burned up in the fiery zeal out of which martyrs are made. It is true, as the poet has sung, that "God moves in a mysterious way His wonders to perform." We cannot pull aside the curtain which veils from our eyes the mysteries of the future, but amid all these mighty sorrows, amid the world's anguish, we can feel that men are being made to see things in a new light. The world is coming to realize that duty and self-sacrifice are nobler than personal comfort and ease. He who battles on the firing line or he who follows the plow or works in the factory or in the mine with his life centered on doing his part, for the good of others rather than for his own profit, may have a new vision of life and a new realization of the responsibility which rests upon him as an individual and as a part of this great nation called by God to save the world from barbarism.

We may well, therefore, think on this brighter side sometimes and not permit our thoughts to dwell too deeply or constantly upon the dangers which our men shall face, nor should we for a moment at any time dwell upon the question of cost in money. The money to be expended counts for naught; it is worthless except for the cause for which it is to be used in this great struggle. And we may well pour forth the billions of the Nation without ever a murmur of any individual about taxation, however heavy it may rest upon an individual, if that taxation be at all in keeping with justice and equity as to the taxation upon others. Our material wealth may perchance have been given to us for this very hour.

Some years ago a young man whose life had been trivial, who had seemed not to have realized his responsibility, who sought only the pleasures of the world, stood by the side of one who was reading from the Sacred Book "To this end was I born and for this cause came I into the world." A few hours later a great fire broke out in a crowded theatre. The young man whose life had been given to pleasure turned with superb heroism to the saving of the lives of those who had been caught in the fire-trap. Again and again he rushed into the burning building and brought forth those who were being overcome. As his work was finished his life was fast ebbing away under the strain and the injuries that had come upon him, and as he lay dying he turned to the one whose voice he had heard but a few hours before and faintly said to him, "Perhaps it was for this end was I born and for this cause came I into the world."

So perhaps in the working out of the plans of the

Almighty for the world's civilization based on human liberty—on liberty of life, liberty of men to serve God according to the dictates of their own conscience; liberty in the largest sense for the betterment of the world; liberty of opportunity; liberty to secure the best that the world can afford, free and open to the poor as well as to the rich, our mighty material resources and our almost boundless wealth, and the intermixing of all the nations of the earth in our complex civilization, may have been brought together in accordance with the designs of the Creator.

The world is now in a great conflagration; millions are being swept to ruin by its fierce flames, and as we are called to enter the building and save from death the nation over which the fire of destruction is raging, perchance it may come to us as individuals and to us as a Nation that it was for this hour that we were born and that for this cause came we into existence.

THE SPIRIT OF LIBERTY AWAKE.

THE spirited campaign in progress to acquaint the masses of our people with the facts concerning Liberty bonds and their advantages is typified in the energy and patriotism of the People's Bank of Elba, at Gretna, Va. This institution, a small country bank, carries a large advertisement four columns wide and considerably more than half a page in length in the Altavista Journal of Altavista, Va., that fairly thrills with the spirit of freedom and devotion to republican institutions instilled into our hearts by our forefathers of the Revolution. None can read it without being immediately impressed with the living truth that love of liberty is no mere phrase to catch votes at election time, but, on the contrary, is a living fire in the breasts of the people, although it may sometimes seem to be only smouldering. But now it has burst into flame, and the residents of the cities, active as they may be in strenuous endeavors to arouse the folks therein to the needs of the hour, will find few among the urban populations breathing the very soul of the Declaration of Independence like those of the rural districts, where love of country flourishes with intense vigor.

In this bank's announcement of the Liberty loan it describes the securities which the Government offers, answering seriatim each question likely to be asked and impressing upon the readers the several reasons why everyone who can save should subscribe to the bonds: These are some of them:

"Every American who subscribes to the justice of the course of the United States in entering and conducting the war we are now engaged in should subscribe to the Liberty loan bond issue to the extent of his or her financial ability.

"Every American who subscribes to the belief that an American should stand by his or her country should subscribe to the Liberty loan bond issue.

"Every American who loves America and is jealous of America's honor should subscribe to the Liberty loan bond issue," etc.

There was probably never a time in our country's history when more unselfish efforts were being made in behalf of any great public movement for the general welfare than are now being made to inform the people about this great loan, that is to back up the cause of liberty for the whole world, which is threatened by the cause of autocracy now fighting in its last ditches. There is no gainsaying the truth that if autocracy is not defeated, thoroughly and wholly, in this war it will remain indefinitely to oppress the masses of the people with more and more military taxation, and then in due time to drive them into another vast war in another effort, as this is, to overthrow the free governments of the world, one after another, as has been the aim of the European monarchs ever since the days of the old Holy Alliance.

Prussia is the only one of that combination of monarchs which really remains today, for Austria is practically broken and Russia has become a republic. This is what our leaders have realized and are trying with all their hearts and souls, with every energy at their command, to impress upon the masses of our population that Prussia, leading Germany, is now face to face with the principles of

human freedom, which she, as the center of the Holy Alliance, has long desired to crush out of existence everywhere on earth. And those principles, represented by the United States, Great Britain, France, and lastly Russia (to the great surprise of the world), are now fighting the dragon of autocracy which has almost destroyed Europe and is now fighting to destroy America.

This is the reason why such emphasis is laid upon the Liberty loan and why the people are being told from every platform and in places of amusement, and should be told from every pulpit, of the need that everyone should subscribe to the bonds. Think for a moment what a picture America would present to the rest of the world did she, in a crisis like this, be dilatory in a way that would lead others to suppose we did not think much of liberty ourselves!

It is this thought that is driving the best men of our land to work night and day (this is literally true) to get before the citizens of this republic the fact that everyone is needed to save and buy, or really to buy and save, for that is what it amounts to. Each individual must purchase a bond and then save to pay for it. Folks who have been used to paying for things when they get them must learn a new lesson; that of assuming a reasonable amount of debt, and, moreover, all are called upon to subscribe to the extent of their saving ability.

The people are waking up to the situation, but more of them must be fully awake and act. Now is the time. If you have not subscribed to a Liberty bond, do so immediately.

Many business concerns throughout the country are offering to take Liberty bonds in payment of goods purchased. Nearly every paper in the country is carrying advertisements of banks and business houses, retail and wholesale, and of manufacturers, stressing the importance of everybody becoming an investor in Liberty bonds.

Illustrating the way in which many of the manufacturing concerns of the country are co-operating in the placing of these bonds is a statement issued by the General Electric Co., which says:

The General Electric Co. has set aside \$5,000,000 for the purchase of United States Liberty Loan bonds. In addition to this investment, as a means of assisting the Liberty loan, the company will purchase Liberty Loan bonds for its 79,000 employees on subscription, in all denominations, to any amount, and give the subscribers extended time in which to pay for them. The company will pay for its employees' subscription bonds as required by the Government, and will permit the subscribers to pay for them on the installment plan, as follows:

\$50 bond	\$1 per week
100 bond	2 per week
500 bond	10 per week
1000 bond	20 per week

or by monthly payments of 10% of subscription each month.

Payments are to be deducted from payroll, the first payment to be made on the payday following allotments. The bonds subscribed for by employees will be delivered to them after employees have made their final payments, with adjustment of interest.

The General Electric Co. recommends to its employees the purchase of Liberty Loan bonds as a patriotic duty, and on June 6 a canvass will be made in all departments and offices to receive subscriptions. A large number of employees have already expressed a willingness to subscribe for these bonds, and under the company's installment payment plan every employee can purchase, without financial inconvenience, one or more Liberty bonds.

BUILD SHIPS, AND BUILD THEM NOW.

THE report that the United States Steel Corporation is to establish what may perchance be the largest shipbuilding plant in the world, and concentrate upon the building of ships for the Government the entire activities of the American Bridge Co., backed by all of the constructive abilities of the Steel Corporation, is exceedingly gratifying. We trust that the Steel Corporation will also give favorable consideration to the building of facilities in Alabama for making steel-ship material on a large scale and co-operate in the establishment of a shipyard on the Gulf coast in order that still greater work may be done in meeting the necessity for ships.

Ships without end, ships of wood and ships of steel, we must have to a far greater extent than has yet been indicated by the Shipping Board, for upon ships in almost limitless number will depend whether the Allies will be defeated in Europe, and upon that will depend whether this country shall win or be defeated in this struggle.

THE WAR'S EFFECT UPON BUSINESS.

IN essentials the utmost capacity of the country must be employed. To non-essentials the smallest possible capacity that can be utilized must be given. In other words, in the production and conservation of foodstuffs, in the manufacture of iron and steel, in the mining of coal and gold and minerals generally, in the building of ships, the enlargement of railroad facilities, the betterment of roads available for transportation purposes, and in all things that really go to strengthen a nation's productive food and fighting capacity there must be the utmost stretch of the nation's activities. But in the things which weaken rather than strengthen, such as luxuries and the furbelows of fine fashions, there must be a cutting out in order that the men and women and the money employed in their production can be turned into making essentials.

For instance, there will be a demand exceeding the supply for leather for war purposes. Every unnecessary shoe that is bought merely as a matter of luxury or fashion will take from the soldiers the leather that is needed for their shoes. Every dollar that unnecessarily goes into fine hats and feathers and furbelows will take a dollar that should go into investment in the nation's securities, and in keeping employed in these industries the men and the women who should be employed in producing things essential for war. In other words, **the nation will be busier than ever before in human experience**, but it will be different from peace times.

The last ounce of energy, strength and capacity of mind and body will be employed, but this employment must of necessity be given to the things upon which the nation's life is to be maintained, and not upon the non-essential things. This will mean the shifting of many trades and industries. It will mean that some people who have hitherto been profitably employed in producing unnecessary luxuries and the things which cater to the extravagant should look to the time when they will have to seek employment in producing or handling things which are essential to the maintenance of the nation's life and of the army.

It would be unwise for anyone to attempt to mislead the country and to seek to create the impression that "business as usual" means that all business interests are to be carried on exactly as heretofore, for this would not be true. "Business as usual," in the broad sense, as we have previously said, means that the activities of the nation in production of foodstuffs and the manufactured goods which are essential to the nation's life will have to be produced, not on a basis of 100 per cent. of efficiency or capacity, but on a very much larger basis. Every factory making these things must run to the point where it produces far beyond its rated capacity, or else it will be failing to measure up to its responsibility. Every coal mine, every chemical plant, every iron and steel plant, every machine shop, every lumber mill that can cut lumber for the ships which the nation must build, or which will go into the construction of great building activities to be brought about by the war for war purposes will have to run to the utmost capacity of brain and muscle power. The nation will be on edge. The men at home must live on a tension somewhat comparable to that of the men who will be in the trenches; otherwise they will not be living the full life which this situation demands. The soldier offering his life on the battlefield must be an example to the manufacturer, to the laborer and to others to offer their services in work and producing power to the last ounce of strength, for why should the soldier be expected to lay down his life for the nation and other men rest at home in comfortable beds and do only accustomed work?

Let us not, therefore, mistake the non-essential thing for the essential. Some rich, idle and extravagant people will spend on luxuries as much as heretofore; but it ought not to be so. The importance of conserving the food supply of the country is everywhere being recognized and freely admitted, but it is equally important to conserve the money and man power of the country and the productive capacity of the nation in order that all of the money that can be saved from useless luxuries and all of the produc-

ing capacity that can be saved from creating useless luxuries shall be given to investment in Government securities or in the things which strengthen the nation's life. Luxuries weaken rather than strengthen. They do not create wealth; they dissipate it. They do not create thrift; they oppose it. Some men will have to shift their employment. It would be better for the country if some occupations were abandoned; and the spirit of economy and thrift, which is calling the women and the men of the land to recognize the necessity of food conservation, should extend to the conservation of leather, of clothing, and of many other things. Although some trades and individuals may, through this cutting off of things which can be saved without disadvantage temporarily lose, the country will have phenomenal prosperity, and the billions that are to be expended for war supplies, for railroad and other work will create an unprecedented demand for labor—men and women—at unprecedented wages.

This is a real war. It is a gigantic, world-embracing struggle. To expect that every man is going to be able to continue to do exactly the things which he is doing, and that business will go along in its beaten track without any shifting, would be false. Adjustments and re-adjustments must be found in many directions; but broadly, the whole country will be busier than any other country ever was on the face of the earth, and the man who may lose in one particular may be able to shift his energies or his business into some other line which would be equally as profitable as the one which he has to abandon. But all thought of the question of individual interests must give way before the supreme question of doing the things which make for the nation's life and the salvation of civilization from barbarism. In the doing of this it will be found that the entire man and woman power of the nation is not adequate to the demand upon us, and therefore we must co-ordinate our energies and activities to the utmost extent possible to meet the call at high wages for workers on the farm and in the factory and in all the widely-ramified business interests of a hundred million people who are to provide much of the food and munitions needed for more than a hundred million others.

MOB LYNCHING LYNCHES THE LAW AND CIVILIZATION.

CIVILIZATION was disgraced in Memphis last week and a deep blot was put upon the South when, according to the reports of the daily papers, thousands of people gathered to witness the inhumanly barbarous lynching of a negro, for even though the negro may have deserved death—and he certainly deserved it if he had committed the crime attributed to him—every mob lynching is a lynching of law and order, a lynching of the honor of the Government, a lynching of civilization and a lynching of all that makes for the upbuilding of the individual and the State.

The men who in public or private life wink at lynching are guilty of a greater crime against civilization than the crime of the man who was lynched, for while he may have sinned to the utmost extent of human depravity in an individual life, those who wink at his lynching by taking part in it are sinning against the moral nature of the whole community, lessening its moral standard and lynching the law, the very existence of which makes civilization possible. Every public official who does not go to the utmost extent, risking his own life if need be, to save a community from being lynched in the lynching of the individual is guilty of perjury, and before God and man is guilty in planting in his community the seed the harvest of which will be the destruction of manhood and womanhood, the development of anarchy and the disregard of all human rights.

Through the centuries man has been struggling upward, fighting for civilization, which means fighting for law and order. Any man who takes part in a lynching, or who apologizes for a lynching, is to the extent of his ability destroying civilization and carrying us back into the dark ages, where the bludgeon and the dagger, and not law and order, would be supreme.

DOGS VS. STARVING WOMEN AND CHILDREN.

ELLICOTT CITY, MD., May 23.—Twelve sheep were killed by dogs and four others so badly torn that they had to be killed last night on the property of Charles W. E. Ligon, about two miles west of here.

This statement from the Baltimore Star of May 23 is a specific illustration of how sheep raising is made almost impossible by dogs.

Does the country prefer to permit these dogs to roam at large without contributing a cent to the national treasury in preference to the raising of sheep when the world is facing possible starvation? The question cannot be put off.

Do you love dogs, especially worthless curs and hounds, more than you love starving women and children?

Are you willing to put your own preference as to the love of your dog against the lives of women and children?

Or are you willing, if you are determined to keep your dog, to pay the Government a tax sufficient to make it sure that there will be fewer worthless dogs roaming the country?

And are you willing to make certain that your dog shall not become a sheep-killing dog, by seeing that he is properly confined at night?

The question is one which the country must answer and every individual in it will be responsible for the answer which he gives.

Commenting on the effort of the MANUFACTURERS RECORD to put a heavy war tax on dogs in part for the revenue thus to be gained and in part to lessen dog production in order that sheep production may be increased, the Gazette of Charleston, W. Va., says:

Since the convening of the extraordinary session of the Legislature there has been a measure pending before that body aimed at the protection of agricultural products from the ravages of animals running at large, and with the further object of protecting sheep from dogs which are allowed to run at large by their owners. Thousands of sheep are lost annually in West Virginia because these dogs have been allowed to run without restraint. There is no doubt that the sheep industry has been crippled because the owners of flocks have lacked the needed protection from the wolfish dog that takes delight in the slaughter of these defenseless animals.

The dog has never lacked a friend in the West Virginia Legislature. For years efforts to restrain the vicious dog have ended in failure because of the sentiment for the dog, but the dog has now become a nation-wide issue, and his tendencies toward the destruction of flocks of sheep must be curbed. Sheep-raising must be increased by the decrease of the number of sheep-killing dogs. The MANUFACTURERS RECORD is making a campaign for such a heavy tax on dogs that will lessen their number.

The Gazette Observer of Stray, N. C., discussing this dog question, views it from the angle of the amount of foodstuff required to take care of dogs in that community, and, estimating that it costs three cents per day to feed a dog as a minimum, figures out that that immediate section is spending nearly \$22,000 a year to take care of dogs, most of which are worthless curs, and then adds:

"But let the community get rid of the worthless, neglected dogs. Last summer the community was subjected to several dog scares. Children were bitten by dogs, and a very unsatisfactory state of affairs prevailed generally. Why not take steps now to remedy this?"

A few days ago the writer was told by a dog owner that she bought 20 cents' worth of meat every day for her dog, and yet women and children are starving for food!

Dr. D. J. Lybrook, manager of the Westview Stock Farm of Winston-Salem, N. C., in a letter to the MANUFACTURERS RECORD calling attention to an editorial commendation in the Charlotte Observer of the proposition that there should be a war tax on dogs in order to bring in large revenue to the Government and at the same time to encourage sheep-growing, writes:

Some time ago we wrote all the North Carolina representatives who are in Washington asking them to include the dog in the war tax bill. We contend that you can nearly raise a hog on what you feed a dog. Do you think a tax of \$15 per head would be excessive?

While we do not believe that it would be possible to get Congress to put as large a tax as \$15 per head

upon dogs, we believe that there should be a tax sufficiently heavy to largely reduce the number of dogs and at the same time bring in a very large revenue. It is estimated that there are about 25,000,000 dogs in the United States. If they were taxed \$4 or \$5 per head, probably one-half of them would be eliminated, and yet there would be a revenue of \$40,000,000 to \$50,000,000 or more for the Government, and at the same time the cost of maintaining those that are thus eliminated would be saved and sheep-raising to an extent that would largely increase the food supply of the country would be encouraged.

Every man who prefers to discourage sheep-raising and thus encourage the starvation of women and children throughout this and other lands should naturally vote against a heavy tax on dogs, but every man who prefers humanity first should work for a tax on dogs.

Referring to this subject, the Charlotte Observer says:

Editor Manufacturers Record:

The MANUFACTURERS RECORD prints a picture of a heap of fifty sheep which were killed in one night on a Pennsylvania farm. The sheep were valued at \$1000, and the dogs that killed them were not even worth taxing. Instances of the kind are of record in the State of North Carolina, but we have never been able to enlist the attention of the outside press to the matter. The Pennsylvania incident, however, is regarded as an occurrence of so shocking a character as to have caused a campaign in some of the Northern papers for a war tax on the dog. They are figuring that in this way as much as \$50,000,000 can be raised for the Government, but you will notice that in all its casting about for things to tax Congress has religiously overlooked the dog. The Philadelphia Wool and Textile Association has come to the conclusion that the jury of the people must now decide the case of the Sheep against the Dog. "They must decide," it says, "whether they will protect that wealth-producing animal which, according to archeology, was the first to be domesticated by man, and the one which, taking all things into consideration, has been of the greatest value to supply the real necessities of human existence." Brave words and bold. But just try them on the average Legislature and see of how feeble effect is the application. Even the Congress of the United States is afraid of the onery, ordinary, yaller cur dawg.

IRON AND STEEL MEN REALIZE THE WAR SITUATION.

THE meeting of the American Iron and Steel Institute last Friday and Saturday was given largely to the consideration of the war problems of the country as they affect the nation and its business activities. Throughout the meeting there was a profound sense of the fact that this is the world's most momentous hour. The spirit of levity was not in evidence, but everywhere was a spirit of subdued solemnity.

Men are thinking seriously these days as they have not had occasion to think throughout their lifetime. The discussions which took place at the annual banquet dealt largely with war problems and how they must be solved, and most private talks were along similar lines. Necessarily every important gathering, whether it be religious, financial or manufacturing, from now on must be given largely to similar discussions in order that we may be able to view from every angle our relation to the war.

The iron and steel people, of course, naturally pledged themselves to the heartiest co-operation with the Government in carrying on the war, and Judge Gary properly took the ground that we must recognize that heavy taxation and heavy financial burdens must be borne by the individual and by the business corporations of the country. Wars cannot be conducted without money, and upon the nation's ability to finance the war will depend its ability to maintain its soldiers in the field. The one is as necessary as the other.

In studying this war situation and the increased demand for iron and steel which is coming about by reason of it, we believe that the iron and steel men and the leading capitalists of the country should again have their attention called to the necessity—a necessity of supreme importance to the nation—of adequate development of the iron and steel making resources of the South and Southwest, for otherwise the nation is depending upon one source for iron and steel, which is too great a danger in a time such as we are now facing, and which we shall have to face for years to come.

SOME VEGETABLES ROTTING IN MISSISSIPPI FOR LACK OF DISTRIBUTING FACILITIES.

Pass Christian, Miss., May 19.

Editor Manufacturers Record:

An imperfect and inadequate system of distribution and marketing of farm products has brought about a glut in the vegetable markets of the Mississippi coast, while people in many cities and towns of the country are paying high prices for that class of food.

During the past week the spectacle was witnessed at Pass Christian of farmers being unable to dispose of their vegetables in the local market at any price. Finding no buyers, the farmers had to either haul their vegetables back home or dump them out by the road side.

Similar conditions exist at other points along the Mississippi coast. With the exception of Long Beach, where there is a local shipping association, the truck farmers of this section are unorganized and haphazard conditions prevail in shipping and marketing. Only a few of the vegetable producers have had any experience in shipping their products to Northern markets, and most of these were unsatisfactory, due mainly to high express rates. None of the individual farmers produce vegetables in sufficient quantity to ship in car lots.

In years past few of the inhabitants of the towns on the Mississippi coast had gardens of their own, and they were liberal buyers from the farmers in the surrounding country. This year, as a result of the campaign for food production and food preparedness, probably 80 per cent. of the people in the towns have gardens. This destroyed the local markets for the truck farmers, who are now confronted by heavy losses.

What is needed to relieve the situation in this section, and at the same time supply the consumers in Northern cities, is a system of assembling, distribution and marketing. With an agent to supervise the assembling of products, vegetables could be easily shipped in car lots. One farmer would have, say, ten barrels of carrots, one fifteen crates of cabbage, another twenty hampers of snap beans and others vegetables of different quantities. If all these could be assembled, they could be shipped in car lots and placed in cities in the North where they are needed. If these crops could be disposed of at reasonable prices, the farmers would quickly produce more crops, for the lands in this section are very productive and respond to intensive cultivation. The climate in this section is such that at least two more vegetable crops can be produced this summer and fall, and still another crop produced during the winter.

If the Federal Department of Agriculture would send some of its best experts to the Mississippi coast and devise a system of distribution and marketing what the farmers can and will produce, the entire country would get the benefit of the results. The Mississippi coast can produce fall and winter crops that will supply thousands of consumers in Northern cities.

W. D. ROBINSON.

The foregoing letter from a Mississippi correspondent, a well-informed business man, brings to fulfillment statements made in the past by the MANUFACTURERS RECORD, that there would be a great glut of vegetables at points in the South unless the local people arranged for marketing and distributing facilities in advance. We suggested at the time that while the Federal Government should immediately begin the organization of a system for gathering all of these perishable products from the farms of the South, every town in that section should organize its own system without waiting on the Government, to make certain of a market for every pound of perishable food that was raised.

It is a reflection upon the judgment and acumen of the business people of the coast of Mississippi that they have not taken some action in the matter. That food should be rotting on the farms of that rich territory because the local business men have failed to organize some system for concentrating the handling of this food and its shipment to other sections indicates a lack of appreciation of the seriousness of the work upon which this country has entered.

People are depending too much upon the National Government to do that which they should do themselves.

Washington authorities are burdened with an infinite number of details trying to mobilize a nation of 100,000,000 people into a fighting machine, and

local people throughout the country are in many cases utterly failing to do their part and leaving everything to be done by the National Government, which means lack of business thought, lack of patriotism and lack of energy.

It is very well to suggest that the Federal Government should move in this matter. It is true that this should be done. But are the business people—merchants, bankers and others—along the coast of Mississippi, and all the farmers there, and others throughout the South, incapable of working out an organization of their own which would make such conditions as Mr. Robinson has mentioned an impossibility?

This piece of news is valuable. We are glad that Mr. Robinson has called attention to this condition, for it must be righted, and righted promptly; but we would strongly urge the people of every village and town in the South, men and women alike, to recognize that they have a responsibility to the food producer, to the food consumer, to the nation and to the Allies, to do their full share in devising and managing such systems for food distribution that the farmer may not be discouraged and fail to raise supplies, and that the consumer may not suffer hunger while food rots on the ground for lack of management in distribution.

FLORIDA POTATOES FOR THE NORTH AND WEST.

THE Hastings-Florida district, on the East coast of Florida, which, within the last few years, has become one of the important potato-producing sections of the country, has this year shipped, according to reports from that section, about 3000 carloads of early potatoes, or approximately 570,000 barrels. This remarkable yield was produced on about 11,000 acres, and it is claimed that it has netted the growers about \$4,000,000.

Thus one county in Florida has done a good piece of work in making its contribution to the national food supply, these potatoes being shipped mainly to the North and West, and, according to the popular method of discussing food questions today, the North and West should be vigorously criticized for not producing all of their own potatoes, instead of depending upon Florida for them.

THE NATION'S CALL FIRST.

THE Excavating Engineer of Milwaukee has temporarily suspended publication because the editor and his assistant have been called to the nation's colors, and in an announcement to that effect Mr. Bradley Van Brunt, the editor-manager, expresses the hope that when the nation's army returns victorious he and his assistant will be on the job and able to resume the publication of the Excavating Engineer.

Hats off to Mr. Van Brunt and his assistant, and may they indeed be able to do their duty in this emergency, and when they have helped to bring peace to the world may they be in a position to resume the publication of the Excavating Engineer to their own profit and to the good of the country!

Building Wooden Ships in Denmark.

The building of wooden vessels is now under way in Denmark, writes Consul-General E. D. Winslow, Copenhagen, under date of April 26, and although the start is small, the experiment will be pushed. The decision in this matter has been hastened by the submarine warfare of Germany. At many ports in Denmark temporary arrangements have been made for the laying down of wooden ships. Many industries are threatened with stoppage due to the lack of raw materials, and the workers can thus be given employment at the shipyards building these new vessels.

The type being constructed is a standard one, being of three to four masts, and having a loading capacity of 500 to 600 tons. These boats will also be furnished with a motor. There are now building 10 of this style of craft.

WOODEN AND STEEL SHIPS MUST BE BUILT

REGARDLESS OF COST EVERY ENERGY OF NATION MUST GO INTO BUILDING SHIPS, SHIPS AND MORE SHIPS.

The manager of the greatest lumber mill in America, cutting over 1,000,000 feet a day and owning 600,000 acres of virgin timber, wires the Manufacturers Record:

"With proper encouragement there is no doubt there could be at least, after four to six months' time, 25 to 50 ships launched every day in the South."

The address made at the annual banquet of the American Iron and Steel Institute by General Goethals should never have been delivered. From every point of view it was inappropriate. It was unwarranted and incorrect. That steel ships may be more desirable than wooden ships goes without saying; but to attempt to discredit the building of wooden ships to meet this world crisis, as General Goethals did, and to concentrate the entire shipbuilding activities of the nation on steel ships, would be a disaster, based on shortsightedness and incompetence to deal with so big a situation.

When General Goethals referred to the fact that "the birds were nesting in the trees which must go into the lumber out of which to build the ships," he drew on his poetic fancy; and the poetic fancy should not come into play in the serious problems of this hour. The iron ore and the coal which must go into the making of the material for steel ships is hundreds, and in some cases thousands of feet under ground. They must be mined and transported some thousands of miles in the aggregate before they can, through the furnace and the steel plant, be made ready for the ship. The cutting of the standing timber and the sawing of it into lumber are simpler tasks than the mining of the ore and the coal, the making of the coke and the production of the finished form for the ship. It would have been as improper for an advocate of wooden ships to refer to these facts as it was for General Goethals to attempt to ridicule the wooden ship plan with his poetic thought of the birds nesting in the trees.

This, however, is not the only answer to be given to General Goethal's address—an address which could not be justified even as part of banquet festivities. We shall need, and need to the last ounce of ability to construct, every ship that can be built, wood and steel alike. It is not possible for the steel plants of the country to turn into steel shipbuilding sufficient constructive abilities to master the situation, however rapidly they may be able to produce ships. On the other hand, every wooden ship built would be an addition to our strength and would be one more help in sending food and munitions to the Allies. How many wooden ships can be built within the next twelve months on the Pacific coast, on the coast of New England and on the South Atlantic and Gulf coasts, we do not know; but we do know that under proper Government co-operation in helping to finance these enterprises a vast number of substantially built wooden ships could be constructed, ready to supplement all other means that may be utilized in this world crisis. Since 1915 nearly 6,000,000 tons of shipping have been sunk; and yet General Goethals only talked of building 3,000,000 tons of shipping in the next eighteen months, which would not take the place even of that which will probably be sunk in that time, not counting at all the great vacuum already existing in shipping.

This is not a question of money. It is not a question of the most perfect device that can be constructed for transporting food and munitions to the Allies. Every resource of this nation must be thrown into building ships, without regard to the question of cost, just as freely as we pour money into ammunition, which is expended the moment the gun is fired. Every ship is in reality a friendly gun, throwing into the ports of the Allies food and munitions to keep the people alive and enable them to carry on the war.

Along the Pacific, the Atlantic and the Gulf coasts the Government should, through the most vigorous co-operation, secure the building of every wooden ship that can be constructed. Every wooden ship that enters into the commerce of the country will strengthen our hands against the submarine danger, help us to send food and ammunition to the Allies, help us to care for our own soldiers who must be sent to the battlefield by hundreds of thousands, and, perchance, by millions, and help to care for the coastwise traffic of the country to meet the lack of adequate railroad transportation facilities. Moreover, plans for shipbuilding should be made not merely for twelve or

eighteen months, but looking to the most vigorous construction work for the next four or five years at least.

For General Goethals at a banquet before iron and steel people to antagonize the action of the Shipping Board in contracting for the construction of wooden ships, and to state that steel ships alone would meet the problem, was an illustration of lack of tact and of judgment, and likewise a lack of sobriety of expression which is much to be regretted. Apparently General Goethals overlooked the fact that prior to the introduction of steel for shipbuilding material all of the commerce of the world was carried on in wooden ships and steamers, and that many wooden ships are still contributing their share to the world's ocean traffic. American commerce was developed in the old wooden sailing ship, which carried the products of this country to every port on the globe and brought back to America the products of other lands. There are some shipyards confined exclusively to the building of wooden ships and wooden steamers, and during the last twelve months long-headed capitalists have been contracting with leading shipyards throughout the country for the building of wooden ships. Wooden ships have had long years of life, and the world shortage of shipping will doubtless make them profitable freighters for ten or fifteen years after the close of the war, regardless of the amount of steel shipbuilding that may be constructed. Moreover, yards for building wooden ships can be quickly established, and labor which is not available for steel shipbuilding can be had for building wooden ships.

It is important, therefore, and indeed the life of the Allies—and that means our life—may depend upon the wooden ship working in co-operation with the steel ship. Let us therefore build every wooden ship that can be constructed. Let us build, and build without regard to whether we spend one billion, or two billion, or five billion dollars on ships, every ship that can be produced; for we know not whether this war will be one of two years, or three years, or five years' duration; but we do know that when it is over there will be a vacuum in the world's shipping which will seriously halt the commerce of the world.

Upon the building of ships by this country—more ships, more ships, more ships—as rapidly as they can be built, whether they be of steel or of wood, the life of civilization may depend.

* * * * *

We are glad to have from Washington the assurance that the statement put forth by General Goethals, indicating that there would be a discontinuance of wooden shipbuilding, is not correct, and that the construction of wooden ships will be carried forward actively, the largest contract for the past week having been for the construction of 20 ships at Moss Point, Miss.

If the Government will immediately give out all contracts for every wooden ship that can be built on the Pacific coast, the North Atlantic, the South Atlantic and the Gulf coasts, it will be doing a work comparable in importance to the nation with the steel shipbuilding plans which are under way. Neither steel nor wooden shipbuilding alone can meet the needs of the hour. Both should be pushed to the utmost limit, regardless of the money involved.

From a number of the largest lumber concerns in the South and from several Southern shipyards we have interesting telegraphic replies in answer to a wire asking as to their ability to provide the lumber suitable for shipbuilding. These telegrams indicate that the lumber can be furnished, and some interesting facts in regard to the long life of wooden ships, and to the work that has been done in some yards during the last 25 or 30 years, which are given, will be of interest.

The wire from Mr. W. H. Sullivan of the Great Southern Lumber Co., Bogalusa, the greatest lumber operating concern in America, we believe, owning 600,000 acres of timber land and backed by millions of capital, strongly states the possibility of wooden shipbuilding in the South, and says that this section has the business energy for the emergency, has the material, has the labor, and that long-leaf pine is the only wood that gets tighter in water. He makes, based on his

knowledge of the industry and backed by the vast wealth of his organization, this statement:

"With proper encouragement there is no doubt there could be at least, after four to six months' time, 25 to 50 ships launched every day."

General Goethals admits that he knows nothing about shipbuilding. Here is a statement of a man who knows what can be done in producing the lumber for ships, and a man whose statement is backed by long experience and by the millions invested in the greatest timber-owning and lumber-producing concern in the United States. Will the nation heed Mr. Sullivan's statements?

Commenting on this shipping situation, the New York Sun of Monday last said:

"It is of no consequence whether the ships that will foil the Kaiser's U-boats be built of wood or be built of steel."

"If adequate wooden ships can be built more quickly than adequate ships can be built of steel, wooden ships are what we

want. If adequate ships of steel can be built more quickly than adequate ships can be built of wood, steel ships are what we want.

"The prime factor in the problem is time. Cost does not count. After war conditions are not to be considered. The U-boat must be beaten. The only concrete and practicable plan to beat it calls for the construction of a fleet of cargo carriers sufficient in number and capacity to keep our allies supplied with food and munitions. The materials of which the vessels in that fleet are made must be determined by the speed with which they can be assembled. The output of the shipyards must meet the imperative requirements of German ruthlessness, not the problematical conditions of a peace that is not in sight.

"Each day that passes without action by us increase the U-boat peril. Every postponement of construction adds to the cost in suffering, blood and death we must pay to win the war. An hour lost in shipbuilding here is an hour gained for destruction by Germany.

"Build the ships that will smash the U-boats!"

"Build them now!"

The Greatest Lumber Mill in America, Cutting Over 1,000,000 Feet a Day, Says South Can Launch 25 to 50 Ships a Day.

[Special Dispatch to Manufacturers Record.]

Bogalusa, La., May 29.

As we understand it, the Government has specified mercantile grade long pine for ship construction. This would be such heart lumber that it is not apparent lumber should be air seasoned more than 30 days, as when it goes into the hull, it will go into the water.

All upper parts of ship, including decking, would be made largely of heart, and could be air seasoned for 30 to 60 days. There are unlimited quantities of this class of material in the South, and it seems to us that strong pressure should be brought to bear on Shipping Board to induce them to build as many wooden ships as possible, and to build in the South, where there is unlimited material and plenty of labor. We furnish material for a few ships built in this territory, and the custom has been to load timbers direct from the saw on cars and send to shipyard, where it would be framed and kept on sticks 30 to 60 days, until surface dried.

Nothing would add so much to the prosperity of the South at this time as shipbuilding concerns established everywhere that plenty of water is found. The South is in a position to be of great assistance to the Government in this trying time if it only gets the opportunity.

With proper encouragement there is no doubt there could be at least, after four to six months' time, 25 to 50 ships launched every day.

The South has the business energy for the emergency, has the material and has the labor, and long-leaf pine is the only wood that gets tighter in water.

What the South needs is substantial encouragement from the authorities. Wooden ships have been used since the dawn of civilization. The United States established its supremacy on the sea with wooden ships. This country can win this war by using wooden ships.

W. H. SULLIVAN,

Manager Great Southern Lumber Co.

Can Build Ships Rapidly to Meet Every Requirement of American Bureau of Shipping.

[Special Dispatch to Manufacturers Record.]

Jacksonville, Fla., May 28.

As to the South's ability to furnish suitable lumber for building wooden ships, our lumber schedule is and has been for two months lined up to begin construction of 12 vessels that must and will conform to every requirement of the American Bureau of Shipping. If the contracts were turned loose, we can have this lumber coming into our yards in 10 days, and within 60 days have 12 ships well under construction. We are not in the lumber business, but we are in position to contract for and promptly deliver to the railroads lumber

for the entire quota of wooden ships that were contemplated to be allotted to the entire Atlantic and Gulf shipyards. The ships built from it will and must conform to every rule laid down by the American Bureau of Shipping, and since they are the first and last court of resort in all matters of ship construction, the question of quality or grade is not at issue.

The only thing the South is short on to begin the construction of a fleet of wooden ships for the merchant marine of the United States is the necessary authority to proceed.

HILLIER-SPERRING-DUNN COMPANY,

JOSEPH R. DUNN, Secretary.

Wooden Shipbuilding Absolutely Feasible in South.

[Special Dispatch to Manufacturers Record.]

Slidell, La., May 28.

We consider the construction of wooden ships in the South absolutely feasible, for the obvious reason that the supply of suitable yellow pine and cypress timber is available, accessible and inexhaustible. Southern mills can supply more lumber in 12 months than can be used in the South's entire shipyards. We do not consider this an experiment, but entirely logical. We court a more careful estimate, and challenge a refutation of this statement.

SLIDELL SHIPBUILDING CO.

Southern Yellow Pine Used for 25 Years in Shipbuilding.

[Special Dispatch to Manufacturers Record.]

Jacksonville, Fla., May 29.

Yellow pine lumber for construction of vessels has been shipped from the South for 25 years and more, and has proven the most satisfactory wood from every standpoint for ship construction. Dry lumber is not essential, by any means, but from the time sawn to arrival at shipyards has seasoned sufficient for immediate working. Large number of ships now being constructed on South Atlantic and Gulf, using yellow pine exclusively.

GEORGIA-FLORIDA SAWMILL ASSOCIATION.

Have Been Providing Ship Timber for 30 Years—Five Shipyards at One Point Building Wooden Ships.

[Special Dispatch to Manufacturers Record.]

Orange, Tex., May 28.

We hesitate to disagree with any statements made by as eminent an authority as General Goethals, but we have been furnishing pitch pine for ocean-going tugs, barges, schooners and drydocks for the past 35 years,

and can show you instances of vessels 18 years old with timber as sound today as when built. Pitch pine runs largely to heart, and our further experience is that timbers dressed at the mills as manufacturers are acceptable to builders and no trouble at all found in shrinkage. There is plenty of pitch pine tributary to Gulf ports to supply all the needs of a reasonable number of shipyards at every seaport. Quick action is necessary if the Government really expects vessels for service this year or within 12 months; then a liberal wooden ship program is a wise course.

There are five shipyards here actively engaged and others contemplated. One yard alone has launched three ships within the past five months, and their program calls for a launching each six weeks throughout the balance of this year. This activity on the part of shipbuilders in the South who are able to turn out vessels within the required time, it appears to us, is entitled to the earnest consideration of all concerned before placing a ban on wooden ships.

LUTCHER & MOORE LUMBER CO.

Ship Lumber Furnished Has Proven Entirely Satisfactory.

[Special Dispatch to Manufacturers Record.]

Fullerton, La., May 29.

Heart long-leaf yellow pine, which this company has furnished and is now furnishing to shipbuilders at Orange and Beaumont, Tex., has proven entirely satisfactory, and is recognized as best material for this purpose, as heart long-leaf pine will not shrink. Ship schedules we have furnished are much easier than the specifications proposed by timber committee. If specifications as to sizes and length can be made reasonable, mills can furnish great quantities suitable material. This company has offered through Southern Pine Association entire product suitable for shipbuilding at prices several dollars per thousand feet less than we are receiving for similar commercial business.

GULF LUMBER CO.

Probably as Many Orders for Wood and Steel Ships as Can Be Built.

[Special Dispatch to Manufacturers Record.]

Elizabeth, La., May 28.

The Southern pine mills do not carry boat timber in stock or water as a general rule, therefore are not prepared to furnish it seasoned, except such seasoning as it will have before placing it in vessel. This, however, in our opinion, is not important, especially as to long-leaf heart pine, which is specified for ships. There have been many built of such material that have given full satisfaction, and it seems probable the Government will place orders for as many ships, both wood and steel, as can be turned out for sometime to come. Our company, through the Southern Pine Association, has tendered its capacity for ship timbers, as

have all other members, at prices lower than we are securing for commercial business.

Some mills are now furnishing such material.

INDUSTRIAL LUMBER CO.

An Ample Supply of Lumber to Meet Requirements Available.

[Special Dispatch to Manufacturers Record.]

Beaumont, Tex., May 28.

Government specifications call for timber to be reasonably free from shakes, sap and large knots or other defects. There is available an ample supply from the mills that will meet these requirements, because by the time local builders can properly equip their yards and complete vessels timber should have seasoned itself by natural process sufficiently to meet the requirements specified by the United States Shipping Board.

TARVER SHIPBUILDING CORPORATION.

Abundance of Ship Lumber Available.

[Special Dispatch to Manufacturers Record.]

Beaumont, Tex., May 28.

It seems from the press that pressure from Northern capital is being brought to bear on the Shipping Board to eliminate construction of wooden ships for the emergency fleet, on the ground that the South cannot furnish suitable material in sufficient quantities for the purposes.

We have canvassed the lumber situation for shipbuilding purposes in the Beaumont territory, and have been assured by the mills that they can deliver to us on short notice 10,000,000 feet of suitable lumber to build the ships planned by the Board. We think that concerted effort should be speedily made on the part of the South to assert her interests and push her claims in this opportunity.

McBRIDE & LAW SHIPBUILDING CO.

Twenty-six Years of Shipbuilding Experience.

[Special Dispatch to Manufacturers Record.]

Orange, Tex., May 28.

We have been in the shipbuilding and repairing business for 26 years and in our judgment, if the frame and keel is cut at the mill first and the planking, decking and ceiling last, there is ample time for drying and seasoning. Six weeks is ample time for yellow pine lumber, 90 per cent. heart, to season under ordinary weather conditions.

JOS. WEAVER & SONS.

Lumber for Ships Available.

[Special Dispatch to Manufacturers Record.]

Laurel, Miss., May 28.

In our opinion, the South is capable of furnishing the Government during the next 12 months satisfactory yellow pine sufficient for building 200 wooden ships, possibly more.

EASTMAN GARDINER COMPANY.

For Fairbanks-Morse Diesel Engines.

Marine engines will be built at Baltimore by the Sheffield Car Co. of Three Rivers, Mich., subsidiary of Fairbanks, Morse & Co. of Chicago. They will be the Fairbanks-Morse C-O marine engines of semi-Diesel type, in two, three and four cylinders, ranging from 30 to 60 horse-power. This type of engine is now being built at the company's Three Rivers plant, but in the future it expects to build all of these sizes at Baltimore. Many of these engines are being marketed, and about one-third of the output is being exported. As a nucleus for its Baltimore works, the Sheffield Car Co. has purchased the Charles White Gas Engine Co., and expects the White plant to be transferred about June 15. Some changes will be made, machinery will be arranged and other improvements will be provided with a view to being in full operation by July 15 or August 15.

Wooden Ship Program Not to Be Abandoned

[Special Correspondence Manufacturers Record.]

Washington, D. C., May 28.

Order is finally being obtained out of the previous chaos in the lumber supplies for the 39 cantonments to be established by the War Department for the new army of 1,000,000 men. On the 25th of May the Southern Pine Association, almost overwhelmed by inquiries, established an Emergency Bureau at New Orleans to take care of the problem of indexing the stock of lumber available and equitable distribution. With one or two exceptions, all the mills holding membership in the Southern Pine Association agreed in caucus to abide by a maximum price, designed to prevent the charging of excessive war profits to the Government, and to let the Emergency Bureau arrange for an equitable distribution of contracts.

F. V. Dunham has been in Washington as the representative of the Emergency Bureau. The only difficulty at the present time comes from the letting of emergency contracts, of which previous notice has not been given. This is being straightened out with the War Department, which realizes the value of having the contractors purchase their lumber in the locality where it is to be used, thus reducing freight charges and other overhead expenses.

By co-operating with similar organizations the War Department saved \$56,000 in the contracts for the aviation cantonments at Champlain, Ill.; Dayton, Ohio, and Detroit, Mich. Certain changes in specifications were made at the suggestion of the lumber experts, resulting in this saving, with an attendant improvement in efficiency.

There are to be 39 cantonments for the army, but only the following locations have been approved so far: Atlanta and Augusta, Ga.; Greenville and Columbia, S. C.; El Paso and San Antonio, Tex.; American Lake, Wash., and Manerville, Long Island.

The Emergency Bureau of the Southern Pine Association is co-operating with the Council of National Defense and with its transportation committee to insure a supply of cars, and the whole effort is designed to bring about equitable distribution among the various mills as well as quick transportation and the elimination of all delays. The mills are co-operating with the Emergency Bureau and abiding by their agreement. They are taking the contracts allotted to them, and are not seeking to take more than they can handle in order to obtain profit.

When it is realized that nearly 600 feet of lumber per man will be required, there can be no doubt as to the enormous opportunities for the use of Southern lumber.

With reference to the construction of wooden ships, it has been estimated that 1,250,000 feet of lumber will be required for each vessel. The Emergency Bureau has not tried to shape Government policy with respect to the type of ships to be built, but many of the lumbermen here point out that there is available many million feet of lumber, already cut, which could be used immediately for many more ships than have been contracted for.

While General Goethals was correct in stating that "birds are nesting in the trees" that eventually will be used in wooden ships, he might have made the point much more fairly had he said that fledglings from eggs still unhatched would be just learning to fly when some of the lumber is actually in the ships on the high seas.

It can be stated definitely that the Government is going on with the wooden shipbuilding program. The only difference between Goethals and Denman is a difference with respect to definition. Goethals says that steel ships must be built, despite the wooden ship program. Denman says that the wooden ship program must be carried out, despite the fact that steel ships will be constructed. Each is striving to obtain more power and to be the man in control, but the wooden ship program will be continued. This can be stated authoritatively.

When General Goethals took charge of the Emergency Fleet Corporation, he found that a number of contracts had been let for wooden ships, and objected

to continuing the work until the money was available. Most of the squabbling has been over the availability of money. So far as the differences over the wooden ship program are concerned, it can be repeated that they are merely differences of definition. The authorities in Washington realize that there is need for steel ships, and work is now going on with a view to developing a standard torpedo-proof steel ship. Goethals has in mind a standardized type of steel ship. The assembling of standardized steel plates, it is pointed out, can be done to a great extent by riveters who are now working on bridges, skyscrapers and other steel structures. Some of these men will eventually be diverted to the shipyards where steel ships will be laid down, but meanwhile the Government will continue to build wooden ships. Nearly all the officials in Washington have been impressed by Lloyd George's statement that the crying need of the present situation is ships, more ships, and still more ships, and the Government is going to build wooden ships at the same time it is building steel ships.

There is enough lumber on hand, according to the Council of National Defense, to get the wooden ship program well under way, and the nesting birds are being dislodged right now.

Definite Announcement by Board of Contracts Let for Wooden Ships.

Washington, D. C., May 28.—[Special.]—Confirmation of the fact that the Government intends building as many wooden ships as possible was contained in the announcement issued by the Shipping Board tonight that during the past week contracts for the construction of 50 ships, most of them to be built of wood, had been awarded to five shipyards.

The largest contract awarded during the week was to a Southern shipyard, the Edward F. Terry & Henry L. Brittain Company, whose works are at Moss Point, Miss. This company was instructed to build twenty composite cargo-carrying steamships complete. The following announcement regarding the contracts for construction during the week was given out today by Gen. George W. Goethals. It reads:

"Sloan Shipyards Corporation, Seattle, Wash., 16 wooden cargo-carrying steamers complete; first steamer to be delivered January 31, 1918; two in February, 1918; four in March, 1918; two in April, 1918; two in May, 1918; two in June, 1918; two in July, 1918.

"Grays Harbor Motor Ship Corporation, Aberdeen, Wash., four wooden hulls. First hull to be delivered January 15, 1918; second, February 15, 1918; third, March 15, 1918; fourth, April 15, 1918.

"Coast Shipbuilding Co., Portland, Ore., four wooden hulls. First hull to be delivered January 1, 1918; second, March 1, 1918; third, May 1, 1918; fourth, July 1, 1918.

"Edward F. Terry and Henry L. Brittain, 60 Broadway, New York city; works, Moss Point, Miss.; 20 composite cargo-carrying steamers complete. First steamer to be delivered February 1, 1918, and the remaining 19 within the next 10 months.

"Skinner and Eddy Corporation, Seattle, Wash., six steel cargo-carrying steamers complete. First two steamers to be delivered within five months from date of arrival of keel plates, and of the remaining number of steamers the building of the second two steamers shall be commenced immediately after the completion of the first two steamers and shall be delivered within five months after the laying of the keels, and the building of the remaining two steamers shall be commenced immediately after the completion of the second two steamers, and shall be delivered in five months after the laying of the keels.

"(Signed) GEORGE W. GOETHALS."

It is understood that the next announcement made by the Shipping Board regarding the allowing of contracts will include many large awards for the construction of wooden vessels. It was rumored today that 100

wooden ships had been contracted for within the past two days, but no confirmation of this report was forthcoming from the Board itself. It is evident, however, that recently published reports to the effect that Gen-

eral Goethals had decided to build steel ships solely were incorrect, and that it is intended to build both wooden and steel ships, allowing contracts for both classes as rapidly as possible.

Ship Timber in Abundance Available in the South

[Special Dispatch to Manufacturers Record.]

Washington, D. C., May 29.

"The South is prepared to furnish the lumber required and to build all of the wooden ships that the United States Government may demand."

This was the positive statement made today by J. E. Rhodes, secretary-manager of the Southern Pine Association, to the MANUFACTURERS RECORD correspondent.

In speaking of the wooden-ship situation Mr. Rhodes made it clear that he was discussing authoritatively only the phase represented by the timber industries of the country. At the same time he cited a number of official statements, as well as facts ascertained incidentally in his study of the subject, to indicate that no insurmountable obstacles were likely to be encountered with engine builders, at the wooden shipyards, or in the field of such expert labor as is essential to the construction work.

"There are 10,000,000,000 feet of yellow pine produced annually in the Gulf States from Florida to Texas, including Georgia," said Mr. Rhodes. "This is one-third of the annual output of the United States.

"Without the slightest difficulty the Southern lumber industry can turn out all of the timber necessary, and of the required size, for all of the wooden ships that the Emergency Fleet Corporation of the Federal Shipping Board proposes to build.

"There are now 500 large commercial sawmills in the South doing a business equivalent to 1,000,000 carloads of lumber a year.

"The mills of the Southern Pine Association alone represent an annual product of 6,000,000,000 feet of Southern pine. In speaking of this I merely have in mind an expression of the enormous quantities of material available. Our association is naturally interested in the wooden shipbuilding proposition, but my immediate object is to emphasize the availability of supplies in sufficient amount to forward the work of ship construction with the utmost promptness, from the standpoint of the lumber manufacturer."

Asked as to the fitness of the Southern timber for use in all parts of the ships, Mr. Rhodes said:

"Of course, not all of it is capable of being used in any part of the construction work. This brings up an interesting point, however, connected with the original plans drawn by the architect of the Emergency Fleet Corporation.

"When it came to the details as to furnishing timber a committee from the Southern Pine Association was able to suggest to the architect certain changes in the dimensions of the timbers to be used in the proposed boats through which the amount of material available in the Southern pine forests would be increased fully 1000 per cent. The original draft called for sticks 60 feet long in certain parts of the vessel. After a conference with our committee the architect saw that these lengths could be materially reduced without impairing the strength of the vessel, and that, consequently, the Southern timber could be made to supply practically all of the wooden material needed in the ships. Even if the original plan had been adhered to, it was shown that Pacific Coast fir could be easily obtained for the larger log stuff, as 60-foot fir timber is as commonly met with as 24-foot material in yellow pine. This would not interfere in the least with construction work. In fact, if it were possible for shipbuilding activities to progress rapidly enough, it would find the timber industries in both sections working together at the same moment for the great end in view.

"However, no such emergency exists. The schedule of the bill for standard wooden ships to be built for the emergency fleet calls for 1,430,000 feet of timber for each boat.

"Now, assuming that one-half of the timber product of the South could be made into material suitable for

the construction of these wooden boats and meet the requirements of the Government schedule, it will be seen that the required number of feet for two hundred boats could be manufactured every thirty days, and that this process could be continued indefinitely.

"The information thus far given out by the Shipping Board indicates that 150 wooden boats will be built on the Gulf and South Atlantic coasts. Of these, contracts for 100 are now being let, with the expectation that the contracts for all will be let within the next 60 days.

"As no shipbuilder can immediately erect and fabricate the material for a single boat, the construction of which requires from three to six months, depending upon various conditions, it will be seen that there can be no occasion for delay on account of inability to get the necessary timber. In fact, during the time required to build the 150 boats proposed, the mills of the South will be able to turn out enough material for the construction of several hundred such boats."

Mr. Rhodes was asked whether the use of green timber in the construction of these ships would militate against their seaworthiness.

"I am not a shipbuilder," replied Mr. Rhodes, "and consequently am not in a position to speak from personal knowledge and experience on this point. I have been told, however, that there are boats in the coastwise trade of South Atlantic and Gulf waters which have been in operation for 30 or 40 years, and some on the Pacific Coast which have been plying those waters for 40 or 50 years, which were sawed out of green timber and built without seasoning.

"This would seem to answer objections of the character mentioned. I believe boats of this kind of timber are now being turned out, although in the main they are of smaller tonnage than the 3000-ton ships contemplated in the emergency wooden fleet.

"At all events, the South, with its two hundred or more shipyards, is equal to the situation. It may be stated here that the annual timber output of the United States does not represent the full mill capacity of the country, which is capable of producing 117,000,000,000 feet of lumber of all species of timber, although only 40,000,000,000 feet are actually produced. These are Government figures, not mine. The proportion of the entire amount capable of being produced by the mills of the South is very high."

On the question of available labor, Mr. Rhodes again said that he was not qualified to speak from personal knowledge. It was pointed out, however, that a slump in city building had been recently noted. This, he said, would tend to release much labor that could be diverted to shipbuilding. To a very large degree, a good carpenter, under competent technical direction, possesses enough expert knowledge to meet the requirements of shipbuilding. Furthermore, Mr. Rhodes said, Southern shipbuilders seeking contracts have been quoted as saying that they can get all the labor they want of a character of expertness sufficient to meet their needs.

Concerning the claim that has been made that engines will not be forthcoming, Mr. Rhodes cited a conversation with a member of the Shipping Board some months ago to the effect that there would be no trouble in that quarter.

"As I said at the outset," concluded Mr. Rhodes, "I am merely stating the case of the South from the standpoint of its timber supply and its ability to get all the necessary material to the shipyards faster than the boats can be built. If there are no other difficulties—and I feel confident there are not—there isn't a thing to stand in the way of the Government proceeding at once with its wooden shipbuilding plans, whatever may be the collateral projects it has in mind."

SHIPBUILDING ACTIVITIES CONTINUE THROUGHOUT THE SOUTH.

New Companies Formed in Florida and Louisiana—Established Yards to Undertake Improvements.

Several additional shipbuilding companies were organized in the South during the past week, and the companies reported since March 1 are proceeding with plans for the establishment of their shipyards. These various important enterprises have been reported to the MANUFACTURERS RECORD, and today's new organizations include a \$300,000 plant at Berwick, La.; another with \$300,000 capital at Savannah, Ga.; a \$100,000 company at St. Petersburg, Fla., and several others which have not announced their capitalization or the amount they expect to invest. The week's news is summarized in the following statements:

Contract for 10 seagoing vessels, valued at about \$2,000,000, has been awarded by the Government to the Union Bridge & Construction Co. of Kansas City, Mo. This company will establish its shipbuilding plant at Morgan City, La., and has leased waterfront property on Berwick Bay, where it will at once construct a drydock. The vessels will be uniform in design, built from Government specifications, with hulls and superstructures of Louisiana long-leaf pine. Each will be 280 feet long by 47 feet wide and 26 feet deep, with a cargo capacity of 3000 tons. In a few weeks it is expected that about 1500 skilled men will be employed on the ships, which are to be completed within 15 months. Upon completion each vessel will be equipped with machinery by another company. Kansas City shipcarpenters, superintendents, foremen and calkers will be transferred to the plant site and there augmented by workmen employed on the coast. H. K. Seltzer, the company's vice-president, will have direct supervision of this yard, and J. F. Wilhelm is the engineer of construction.

A definite decision is announced by the Baltimore Dry Docks & Ship Building Co. for its recently reported proposed \$2,000,000 additional shipbuilding facilities on Baltimore harbor. These facilities were provided in locating a complete plant adjoining Fort McHenry, and will probably include boiler works. They will comprise four or five shipbuilding berths for vessels up to 600 feet long and of 15,000 gross tonnage, with future plans contemplating drydock facilities to include a floating drydock. It is contemplated to construct a railroad tunnel under Fort avenue to connect the present plant with the new yards. Day & Zimmerman are the engineers for the new plant.

Dredging and filling is now in progress for the Bruce Drydock Co., Pensacola, Fla., to provide site for a modern drydock and repair yard. Fifteen acres of ground will be made, with track connections to all of the railways entering Pensacola and dredging pits for three drydocks with channel 19 feet deep in the bay to the new plant. The company now has ready for use, as soon as the dredging is completed, one unit of 1000 tons capacity and one unit of 200-ton floating drydock. It is having plans and specifications prepared to begin the construction of a 4500-ton pontoon floating drydock. Other facilities are being provided by the construction of a woodworking plant and a steelworking plant near the docks, within easy access of the ships in course of construction.

More than \$300,000 will be invested at Berwick, La., for land, shipways, machinery, tools, etc., for a shipbuilding plant which Janes Bros., Boomer, Crane & Howe of Berwick and Morgan City, La., will establish on Berwick Bay. This firm has leased a 40-acre site and will utilize a 2000-foot water frontage for the shipyards, which are planned to have 12 shipways for constructing vessels. Plant construction materials have been purchased and are beginning to arrive at Berwick.

Shipbuilding facilities will be established at Savannah, Ga., by the National Shipbuilding & Drydock Co., which has been incorporated with \$300,000 capital by E. D. Flynn, John A. Calhoun, T. M. Cunningham, Jr., R. S. Salas and H. Hodgson.

Plans are being formulated by R. L. West of the J. B. McCrary Engineering Co., John D. Harris and associates, St. Petersburg, Fla., for the organization of a \$100,000 company to establish a shipbuilding plant. They propose an initial investment of \$40,000 for the machinery to begin the construction of the first vessel, and schooners of from 400 to 2000 tons capacity will be

built. A site on the waterfront has been leased, and all details as to the company will soon be determined.

An initial investment of \$75,000 for filling, grading and building shipyards at Beaumont, Tex., has been decided upon by J. N. McCammon and others of Pine Bluff, Ark., and Kansas City capitalists. They will organize a company and construct two marine ways, intending to lay the keels of two ships within a few weeks. The plant site comprises seven acres of land, with an 850-foot waterfront, on the east side of the Neches River opposite Beaumont. Construction materials and machinery for the plant have been ordered.

Additional facilities will be provided at the plant of the Hillyer-Sperring-Dunn Company, Jacksonville, Fla., which writes to the MANUFACTURERS RECORD that additional water frontage has been acquired giving a total of 40 acres, with a waterfront of 1450 feet. This additional land is being laid out and berths are being built for 12 additional ships. Orders have been placed for traveling cranes, derricks and an extensive layout of trackage. The company has enlarged its mold loft, is building additional machine shops, installing a galvanizing plant and placing a full equipment for the manufacture of chains and anchors.

W. D. Davis of Gardenville, Fla., manufacturer of lumber, is planning to establish shipyards, and has site on Hillsborough Bay near Gardenville and Tampa.

Shipyards will be established at Millville, Fla., by the Gulf Shipbuilding Co., which has been organized with the following officers: H. H. Boyer, president; C. W. Lamar, vice-president; both of Pensacola, Fla.; A. A. Payne, secretary-treasurer, cashier of First National Bank, Panama City, Fla. No further details have been announced.

A plant for building ships will be located at Milton, Fla., by the Bagdad Shipbuilding Co., which has organized but has not determined the details for its yards. The officers elected are: John A. Merritt, president; R. H. Turner, secretary; E. R. Malone, treasurer; all of Pensacola, Fla.; F. W. Stevens, vice-president, manager of Bagdad Land & Lumber Co. of Bagdad, Fla.

About \$20,000 will be expended by White & Block, Wm. White, manager, Beaumont, Tex., for additional shipyard facilities, for which they have leased waterfront property. They plan to construct roller marine ways costing \$8000 to \$10,000, erect several buildings, purchase new machinery and other equipment, etc., the new ways to accommodate vessels up to 250 feet long.

Contract to build wooden ships for the Government has been secured by Horton & Horton of Houston, Tex., who will build shipyards for undertaking this work. The firm has secured a waterfront site on the Houston turning-basin, and will provide facilities for constructing wooden vessels according to Government designs and specifications, its leased properties including two municipal slips. Plant details are now being considered.

All the Southern shipbuilding plants are busily engaged in the construction of vessels of various classes, and some of their contracts are outlined in letters received by the MANUFACTURERS RECORD, summarized in the following statements:

By June 15 the Hillyer-Sperring-Dunn Company, Jacksonville, Fla., expects to launch a schooner it is constructing for the David Berg Distilling Co. of Philadelphia. This vessel is a three-masted schooner of 1100 tons dead weight carrying capacity, and is being equipped with steel tanks to transport molasses from Cuban ports to Philadelphia. The Jacksonville company is also building two cargo barges of mould type, each with a carrying capacity of 2400 tons, for the Northern Transportation Co. of Baltimore. These two vessels are of frame construction, and one is to be launched about July 31, while the other is expected to be launched by September 1. They will engage in the coastwise coal and lumber trade.

Two 2100-ton four-masted auxiliary schooners are under construction by the Wilmington (N. C.) Iron Works. Their length over all is 250 feet, breadth 40 feet and depth 21 feet. They are to be equipped with two 400-horse-power Diesel engines, and when completed are to be used for general cargo service. Each will cost about \$200,000. As soon as they are completed, which will be in about two months, the company expects to start work on other ships of similar type.

The Mason Forwarding Co., Jacksonville, Fla., will construct three hulls of the wooden steamers that are to be built by the Federal Shipping Board. These vessels will be built on the land adjoining the company's property, and it expects to build other vessels for the

Government and other parties if the demand continues after the completion of the first three.

G. S. Baxter & Co. of Jacksonville are progressing with the construction of three auxiliary wood schooners 223 feet long, of 1245 tons gross registry and 2100 tons dead weight. The construction is yellow pine and live oak, the latter used largely for the bilge or corner timbers of the frame. The firm expects to complete the first of these vessels about August 1 and the other within 60 days after that date.

At Savannah the Georgia Shipbuilding Co. is building, for its own account, two 1350-ton four-masted schooners without power. The first schooner will be completed about August 1 and the other about November 1. Have no large ships under construction, but their establishment is busy with general repair work.

They have under construction, for stock, a small harbor lighter of about 170 tons.

Boats of the schooner type will be the special type of vessels which the Santa Rosa Marine Co., Milton, Fla., will build. This is a new enterprise organized with a capitalization of \$30,000 and the following officers: C. G. Murphy, president; R. S. Quina, vice-president; J. E. Turner, secretary-treasurer.

Plans have been completed for the first building of the Orange Maritime Corporation, Orange, Tex., lately mentioned as to build a permanent plant for constructing vessels. The initial building will be 370 feet long by 70 feet wide, of frame construction, for the storage of machinery, tools, supplies, etc. Additional buildings will be constructed for the machine and other departments. Considerable machinery has already been purchased.

Tax the Profits!

DAILY FINANCIAL AMERICA STATES THE CASE AS TO EFFECT OF ZONE POSTAGE PLAN ON NEWSPAPERS OF NATIONAL CIRCULATION.

[Daily Financial America, May 25.]

One of the things that has tried the patience of men in these times has been the silliness or worse of the men in Congress in the plans they have formulated for the conduct of the war, financially and otherwise.

There probably is no agency in America that does more to knit the States together and keep California attune with the Atlantic States and Texas with those on the Canadian border than does the national publication.

No other nation has such powerful, progressive periodicals as *The Saturday Evening Post*, *The National Geographic Magazine*, *The World's Work*, *The Outlook*, *The Manufacturers Record*, *The New York Times*, etc. In no other country can a manufacturer use printer's ink and through a few mediums reach ten million, twenty million, fifty million readers. In no other place on earth have the arts of typography and of pictured illustration been employed to such good effect in the promotion of industry.

It is not alone in the making of a national market for American manufacturers that the national publication does a great work. The bigger, the greater work is in welding the interests of all the people of America, of wiping out geographical lines, of minimizing the barriers of mountains, of deserts, of plains, of distance. Without the national publication America would not be so much of a melting pot of the mixture of races attracted to America by the beacon of democracy.

The telegraph, the telephone, the railroad, the automobile, the printed word are the great agencies of communication. Nowhere are they developed so highly, used so broadly and of so much service as in America.

In the tax which Congress proposed to put on newspapers and magazines the printed word would be restricted without, it is believed, adding any revenue to the Government.

The creation of a zone system, with an ascending rate of postage, would have made it impossible for national publications to sell their papers at present prices. It would force them either to double or treble the present selling price or curtail the number of pages or charge so much for advertising that many manufacturers could not afford to use their pages. Either one of these three things would result if the publications sought to continue, but it is more likely that many of them would be destroyed, forced to cease business because the public, habituated to high-class publications at low price, would not or could not pay the price necessary to meet the publisher's increased costs.

There is no other country in the world where national merchandising has been brought to so high a plane as in America. There is no other country on earth where the manufacturers or the sales manager can address 100,000,000 consumers by the use of a comparatively few agencies. There is no other country in the world where advertising has been studied so closely, made so effective and has been so stimulating to industry.

And Congress would menace this great institution

if it put into effect the zone system of postage on publications and increased the rate on printed matter as it intended.

The Senate, it is announced, will strike out the newspaper and periodical postage provision and the vicious zone plan.

The manufacturers of America have reason to rejoice. The people have reasons to be thankful.

Now, if the gentlemen who sit in the halls of Congress wish to reduce the expenses of the postoffice department and effect a real economy, they will restrict the volume of matter that goes through the mail free on Government stamp. Not one-fiftieth of the printed matter sent from the Government printing office is read by the people with one-fiftieth of the interest, attention or profit that the magazine, the newspaper, the weekly publication or the trade journal, for which the public pays, is read.

Tax profits. Taxation should not be made to hobble a man or an industry. No decent man wants to shirk his full obligations in this war, whether it be through his personal service in the army or navy or by the "silver bullets" of his industry. All decent men want to do their "bit" and more. There is a glory in sacrifice. Nothing is worth having that is not worth making sacrifice for, either in blood or in treasure. The American man made a glorious sacrifice to make the black man free. He will make a greater sacrifice, if necessary, to make all men free, to make "the world safe for democracy."

There is not an atom of selfishness in the protest of publishers against the destructive tax on printed matter. There is patriotism in it.

Tax the profits of the printers, the publishers, the steel men, the copper men, the cotton men, the wool men—all men. But don't cripple or destroy the great machine by which it is possible for them to make the profits, by which it is possible for them to employ so much labor, by which it is possible for them to do their small part in the great work of the making of America and in the making of America a great, probably a deciding factor in the ending of this world horror of world war.

A Successful Public Service Company.

The Consolidated Gas, Electric Light & Power Co. of Baltimore has issued a ten-year review of its operations, together with a description of its present status and prospects. This booklet of 20 pages, with copious illustrations, is most interesting in its descriptions of the company's career and the manufacture of its products. In a letter to the stockholders President Herbert A. Wagner says that the company is practically free from the burdensome conditions which apply elsewhere and that, in respect to many of the most desirable conditions for operation, its position is unique and places it in a class by itself, particularly in regard to its field for development and prospects for the future, due largely to its most favorable location on the Atlantic seaboard.

To Navigate the Mississippi Transportation Companies Being Organized

MOVEMENT BACKED BY GOVERNMENT, IN HANDS OF STRONG INTERESTS
IN ST. LOUIS, NEW ORLEANS AND ELSEWHERE—PRESENT RAILWAY
CONGESTION DEMANDS MEASURES FOR RELIEF.

[Special Correspondence Manufacturers Record.]

New Orleans, La., May 25.

Bringing with them the word that the restoration of transportation on the Mississippi River is practically a fact; that the railroads of the country admit that they cannot cope with the traffic that is now being offered; that the War Department, the Secretary of War, to say nothing of the President of the United States, is heartily in favor of the project. New Orleans' water transportation commissioners to the nation's capital, M. J. Sanders, president of the New Orleans Board of Trade; W. P. Ross, chairman of the committee on transportation; Earnest Lee Jahneke, president of the New Orleans Association of Commerce; Thomas Cunningham of the New Orleans Belt Railroad, returned today enthusiastic over the outlook.

The visit of this delegation of the city's foremost business men was the outgrowth of the recent meeting held in St. Louis to consider the river transportation problem. Here ways and means were worked out on paper, a delegation, representing the whole Mississippi Valley, dispatched to the seat of Government to explain the Valley wanted to "do its bit" and to ask for the proper kind of support and encouragement from the national head.

The waterways of the Mississippi Valley have been called upon to perform their part in the national defense plan of the present war with Germany. With the co-operation of the Secretary of War the initial conference was held in St. Louis early in May and a permanent organization formed known as the Mississippi Valley Waterways Association. It was agreed at this meeting to form two adequate and satisfactory barge lines with a minimum capitalization of \$3,500,000 to operate between St. Louis and New Orleans and St. Louis and St. Paul to stimulate barge lines on all tributaries.

The association formed takes in six districts, including the Mississippi, Ohio, Illinois, Missouri, Arkansas, Tennessee, Red and other streams. A plan was adopted for financing the new organization, and the amount apportioned the New Orleans-St. Louis division was \$2,000,000; that of the St. Louis-St. Paul \$1,500,000. It was also estimated that the annual cost of proper and vigorous administration would approximate a very large sum so sturdy corporations to see the plan through would be necessary and would call for the best business blood of all the cities concerned.

"We went to Washington for encouragement and backing," said W. P. Ross, shortly after his arrival Friday, "and I am very glad to say we will get it. While nothing official was given out, we were all satisfied that the Government realizes that the restoration of traffic on the Mississippi is imperative. I have it second-hand that the President is with our effort to relieve congestion.

"The situation today is that the whole Mississippi Valley is congested and the railroads absolutely helpless in the matter. And it is not alone war business that has caused this, for the Mississippi Valley has outgrown its railroad facilities. For 20 years the railroads have not favored the river transportation scheme of things, for they were busy building up their volume of business. Now they have their volume and more than they can handle. If they had 100,000 more cars at this present moment the roads would be just as badly congested.

"Now the railroads see that they are where water transportation has to come to the aid of the country, and we received assurances while in Washington that our project would be welcomed."

Mr. Ross was asked concerning the past attempts to revive Mississippi River transportation, the failures that line the levees from Cairo to the Crescent City, and what effect this would have on the operations to be immediately commenced to finance a corporation to carry the newly devised barge lines to a successful conclusion.

"Our proposition will be different in every way," explained Mr. Ross, who is one of the leading steamship agents of the South, and one who must be recognized as

an authority. "The Inco barge line and their forerunners were experiments, and as you know, experiments never succeed. To carry on a line such as we know is needed we must be prepared and willing to lose money the first year or two. Our proposition will be a \$2,000,000 concern, and one that we will have formed in a very short time, I am assured. We will have what is needed in projects of this kind—plenty of money.

"We must have a big line, an energetic line, a line with many barges, or such other type of vessel the company will select, that will carry freight up the river as well as down. I am convinced that a daily line of barges will merely scratch the surface of the trade that awaits all along the Mississippi Valley.

"There is one thing that is most evident, and that is, that only where there are the proper terminal facilities along the waterway routes can the congestion situation or other business situations be relieved. We are returning to the city, my fellow-delegates and I, with the knowledge that we have work, and lots of work, before us in the campaign that we must wage to bring this campaign to a bountiful fruition. We must, first of all, educate the people of the valley to the absolute need of this river route, and we must have the support and active assistance of the Government—this last I know we have."

Mr. Ross said that as yet there had been nothing formulated as to the type of vessels, whether they would be of steel or wood, he could not say, but he emphasized the fact that the whole scheme was past the visionary stage.

"Under present conditions, when it is our absolute duty to do our full part in this great war, transportation becomes of paramount importance," said M. J. Sanders, president of the New Orleans Board of Trade, the general manager of the Leyland Steamship Line, and chairman of the local delegation that went to Washington. "Its importance was stressed by Secretary of War Baker when he said to us that this war would be won or lost by transportation.

"It is therefore, an exceedingly serious consideration for the Government and for all citizens of this country to know that at this critical time the transportation facilities in this country are entirely inadequate. Because of this we citizens have asked the assistance of the Shipping Board to provide us with cash, with the necessary barges for the company which is to be organized jointly by the citizens of St. Louis, Memphis and New Orleans. We have asked for this assistance because it is impossible, under present congested conditions in the steel industry, to obtain prompt delivery or commercial prices without this help.

"I am most optimistic over the outcome. We will receive the assistance we ask, for although we have not been given the official word for it as yet, still we were informed that the President had expressed himself most favorably, and we confidently hope in the next few days to hear that our request has been granted in full."

That the whole Mississippi Valley views the waterway transportation seriously was the claim of Mr. Sanders. He said that there were representatives from 37 cities of the valley at the St. Louis conference early in May, and that these representatives from the 37 cities attended at considerable inconvenience and expense, an evidence of their serious interest in the project.

"The address of Secretary of War Baker to the special committee from this conference was a most emphatic presentation of the patriotic duty of citizens upon waterways to utilize those waterways for the transportation of their commerce whenever it was at all possible. The authorities in Washington appreciate that the railroads are now unable to cope satisfactorily with the enormous volume of traffic which is offered them, and that only by the use of the navigable waterways is any prompt and permanent relief possible.

"At an interview which Senator Joseph Ransdell of Louisiana, Congressman Small, chairman of the Rivers

and Harbors Committee in the House, and myself had with Mr. Fairfax Harrison, chairman of the railroad committee of the National Advisory Board, Mr. Harrison stated emphatically that the railroads 'would welcome cordially any practical water transportation assistance.'

"This pronounced statement, coming, as it does, from a prominent railroad official and the chairman of the Central Railroad Committee, should remove from the minds of intending investors in this new barge line any fear as to the safety of their investment by reason of railroad antagonism.

"Personally, I am convinced that the railroads realize, as well as we do, the necessity of the waterways carrying their full share of the commerce of this country, and I have not the slightest fear in my mind that a properly conducted river transportation service will receive anything but the cordial co-operation from well-managed railroads.

"We propose shortly to place this Mississippi Valley barge line before our citizens, and we believe that we shall have no difficulty in obtaining all the subscriptions for stock which is necessary to insure the formation of a permanent, thoroughly well financed river transportation company. I may say, too, that the same sentiment in regard to St. Louis and Memphis was expressed by representatives of those cities at St. Louis and at Washington."

Urges Removal of Tax on Margarine.

Urging that the tax on vegetable oils be removed so that a nutritious and palatable substitute for butter may be provided, and at prices within the reach of ordinary people, Mr. J. W. Paige, secretary-manager of the Chamber of Commerce, Florence, Ala., has written to the Congressman of his district describing the hardships which the present tax on margarine imposes on the country. In the course of his letter Mr. Paige says:

"There is perhaps no better example of the hardships the high tax on margarine, the product made from vegetable oils, is causing than at Florence, Ala., where the citizens of Florence and surrounding country are endeavoring to establish a creamery, but owing to the fact that there is comparatively little milk to be had, as in most parts of the South, great difficulty is being experienced in starting a creamery. Were it possible to use vegetable oils and manufacture margarine the supply of milk would be ample to produce enough margarine or fat to insure the industry and make it a decided success.

"Our farmers would thus be encouraged to produce more milk, and in producing more products to be used in the manufacture of vegetable oils, and this section would be greatly benefited.

"What is true of the Florence section is also true of other parts of the South where there is not enough milk to establish a creamery for the making of butter only, but where enough milk could be had to manufacture vegetable oil food or margarine should the tax be removed.

"We believe the removing of the high tax on margarine or similar food products made from vegetable oils would be a great blessing to the South, and at the same time would enable the common people of the entire country to enjoy the much-needed fats which they are unable to secure at the present time, owing to the war-time price of butter."

Saving Sweet Potatoes—Important Suggestions.

C. LYMAN SPENCER, Chairman Special Committee, Jacksonville Real Estate Board, Jacksonville, Fla.

We send you under separate cover a special bulletin which we have prepared on the sweet-potato situation in the South, showing methods of preventing the annual loss in eight Southern States, amounting to over \$10,000,000 annually, and the manufacture of the sweet-potato culls and surplus into by-products—seven in number.

The drying of the sweet potato and pressing it into loaves, preserved by paraffined paper and tinfoil, appeals specially to us at this time. From that loaf pies, pastries, cakes, pones, bread, etc., may be made, and it may be soaked in water and served fried, baked or sugared. The sugar content of that dried product should be about 25 per cent.

America's Part in the War As Outlined by Judge Gary

We have entered upon a colossal undertaking, justified only by the necessities of the case and on the highest moral grounds. It is doubtful if any of us fully realizes the strength of the enemy, even though we know his grim determination. His numbers, his preparedness, resources, devices, creative ability, methods, protective barriers, means of rapid mobilization and transfer of troops and supplies are further advanced in effectiveness than any other army or armies have ever been. This concentration and perfection of the utilities of military strength should not be underrated. Years of steady, active and studious, though secret, effort have brought about the creation of a giant, powerful, remorseless, conscienceless; and up to the present this kind of a government, armed to this extent, seems to have an abiding conviction that it can overcome all opposition and sooner or later pursue a war of aggression and conquest.

And yet, the Allies possess an element of strength not appreciated—if it could under any circumstances be understood—by those who are in control of the armies of the Central Powers. The Allies are contending that right makes might; their enemies that might makes right. We are of the opinion that we possess a weapon that must prove all powerful. With this as the foundation and inspiration of our armies they are better able to utilize all the forces at their command. It will require time, skill, numbers, sacrifices and large sums of money; but nothing that we do not possess in abundance. For the reason that we are right and the enemy is wrong, we shall probably see other nations of strength and importance, now neutral in attitude, join the Allies if the war shall be protracted. Some or all of the South and Central American republics, China, Spain, Scandinavia, Holland and Switzerland ought to come in and probably will before the Central Powers are allowed to accomplish what they attempt. These countries could not afford to permit their people to become subject to the dominance of a nation which considers force as the only consideration for aggression and expansion.

With the unprecedented and increasing wealth and the vast resources of the United States she is able to assist materially in providing the financial necessities for equipping multitudes of soldiers from other countries; and if necessary, all these must be mobilized in the defense of a common and righteous cause. And as to equipment, the brains of the Allies, ourselves included, will in time be sufficient to match and overmatch the best talent that is possessed by our adversaries after many years of constant thought and study. Among other things, it is conceivable that if the Allies had the best and most effective types of aircraft, outnumbering those of the other side five or ten to one, they could obtain and hold control of the air and in this way destroy the productive works, transports of troops and supplies, storage warehouses and other facilities for offensive and defensive warfare of the enemy, and thus materially increase the advantage now held by reason of numbers and resources. We may be sure our experts are giving due consideration to all the possibilities for improved machines and methods.

What We Are Fighting For.

What are we fighting for? This question is asked and answered, in one form or another, by millions of people. I give an answer that seems to me to underlie all others: We are fighting to firmly establish and permanently maintain a basis whereby every international question in dispute must be determined in accordance with the principles of justice.

To bring this about, other questions, which are obvious, must be determined; but if the above-mentioned basis is secured everything else necessary will have been or will be disposed of.

The task which confronts the country is not confined to the army and navy, although they will be entitled to the larger part of the credit and glory if we succeed. They offer their bodies as a sacrifice, and they must have the undivided, unqualified support of all outside their ranks. The time, money and prayers of all

civilians must be given for the soldiers. They bear the brunt; they are the shield for our safety. All of us are fighting in self-defense. This is our land and the flag is ours. The administrators of the country, from President Wilson down, are no more interested than each of us. Life would not be worth living if our flag were to be permanently furled; if our country were subjugated by an alien enemy, especially such a one as we now defend ourselves against.

The pecuniary burdens to be imposed upon us will be very great. We knew in advance such would be the case. We must pay the enormous cost of mobilizing, equipping, supplying and moving our own armies, and we must advance money and provide supplies to our Allies in accordance with their necessities and our resources. We could not decline if we were disposed, for they are now fighting our battles and we are, with them, under the whole burden. We must never falter nor retrace our steps. Wherever or whenever the end is, we must press forward with all our strength, might, minds and souls. The more vigorously we proceed within the limits of intelligence, the sooner will the end be reached.

Some of us are complaining or criticizing because of the enormous taxes that are likely to be imposed. We are apt to consider ourselves as opposed by the legislative or executive departments of the Government, as if they were partisans, seeking to punish or at least unfairly treat the private individual. We do ourselves an injustice by harboring such thoughts. We can rightfully claim that the burden of taxation be equitably distributed; that all the people, after exempting the necessities of life, shall be compelled to contribute, and that there shall be no waste or extravagance in making expenditures. If possible, taxes ought to be so levied and distributed as to avoid clogging the channels of business prosperity. All this we may properly demand. Equitable distribution is fair and reasonable, and it makes all pecuniarily interested in the subject, including both the collection and the expenditure of the taxes levied. Less than this would tend to create classes—the worst thing for any country.

Now is the time to unite the whole country in a common cause. The soldiers are on a level, as they ought to be. All others should be on a level. Classes should be obliterated and also politics, localities and religious differences during war times at least. Opportunity should be open to all; governmental burdens should be borne by all. With such an administration of governmental affairs we should be satisfied, however severe the drafts which are made upon us or upon the larger interests which we represent.

I lately spent a few days in Washington, and it was my privilege to meet a number of men who in legislative halls or executive departments are serving their country, and it is certain that all are actuated by the motive to fairly represent and protect the best interests of the country and all the people. Individuals are not influenced by politics. There are and will be differences of opinion concerning the various questions presented, as a matter of course, but these will be adjusted and the legislation finally passed will represent an honest endeavor to do what is proper.

Government Is Co-operating With Business.

You have heard some criticism concerning the conduct of the Government's business affairs. It has been said that confusion or at least lack of system or co-operation sometimes appears; but it must be remembered that there has been suddenly thrust upon the Government officials an enormous amount of business, extraordinary in volume and character, and the strength and capacity of all are taxed to the utmost and often beyond physical endurance. Besides, rules of law or of departments established to fit other conditions sometimes appear and prevent the exercise of judgment which would bring better results if more latitude were permitted. Officials in Washington are entitled to credit and praise for their management under existing circumstances, and so far I believe there is no just ground for severe criticism.

And then there is a disposition on the part of Government officials to co-operate with the business men in promoting the welfare of the country. This is what all of us have desired and advocated, and now we will

probably have as much opportunity in this direction as we have ever desired. Just what will be the result in all the ramifications of the business involved remains to be seen. To the extent that the directors of this Institute have been personally connected with these matters they have been well satisfied, except perhaps as to some of the prices in question.

Mr. B. M. Baruch, chairman committee on raw materials, minerals and metals of the advisory commission of the Council of National Defense, writing for himself and the Secretary of War, and also representing the Secretary of the Navy, requested your president to act as chairman and to appoint other members of a committee on steel and steel products to co-operate with the Government, whereupon the matter was brought before the directors of this Institute and such a committee was designated, consisting of the following:

Elbert H. Gary, Chairman.
James A. Farrell, Vice-Chairman.
James A. Burden.
E. A. S. Clarke.
Alva C. Dinkley.
Willis L. King.
Charles M. Schwab.
John A. Topping.

The general committee has appointed subcommittees as follows:

For Ascertaining Capacities and Supervising Allotments of Orders to Manufacturers—James A. Farrell, E. A. S. Clarke, J. A. Topping, E. H. Gary, Ex-Officio.
On Alloys—J. A. Farrell, E. A. S. Clarke, A. A. Fowler, E. G. Grace, E. J. Lavino, E. H. Gary, Ex-Officio.
On Iron Ore, Pig-Iron and Transportation—H. G. Dalton, Frank Richards, Harry Coulby, George T. Dyer, W. T. Shepard, A. H. Woodward, Leonard Peckitt, Frank Billings, Amos Mather, Secretary.
On Sheet Steel—W. S. Horner, Charles Hadley, Walter Carroll.
On Scrap Iron and Steel—Eli Joseph, Samuel Deutsch, Vernon Phillips, Joseph Michaels.
On Pig-Tie—John Hughes, E. R. Crawford, Edwin Groves.
On Tinplate—J. I. Andrews, E. R. Crawford, E. T. Weir.
On Tubular Products—James A. Campbell, Chairman.
Other members to be appointed.

The committees meet regularly and are devoting much time to the work involved.

They have, with other work, been engaged in mobilizing the resources of the different producers of steel, such as the Government requires for its purposes, and the statistics are in the possession of the secretary of this Institute.

The Secretary of the Navy submitted a program for 1917 for plates, structural shapes and bars needed for ships, and after considerable negotiation contracts were closed in behalf of the producers on the basis of \$2.90 for plates and \$2.50 for structural shapes and bars. We were of the opinion that in view of present costs and other conditions we should receive larger prices, but in the spirit I have referred to the proposition of the Government was accepted. As costs of production are advancing on account of increases in wages, taxes, prices of certain raw materials, etc., it is expected the Government will be willing to increase its purchasing prices accordingly.

Iron and Steel Fraternity Patriotic.

The iron and steel fraternity, represented by this Institute, will be actuated by the highest conception of patriotic duty with respect to the requirements of the Government. We will cheerfully bear our full share of the load which must be carried until there is realized a complete triumph over the hosts of aggressive, desperate and inhuman autocracy. Personal interests will yield to the necessities of the country we love.

Peyton Packing Co.

By June 30 the Peyton Packing Co., El Paso, Tex., expects to begin killing in its meat-packing plant, now nearing completion, the daily capacity to be 200 hogs and 75 cattle. The main building is one, two and three stories high, 179x82 feet, with other structures as follows: Office wing, 40x40 feet, two stories high; extra cooler wing, 41x16 feet, two stories high; 66x14-foot skimming basins; 80x80-foot boiler and engine house, 23 feet high; platform with two sides, 12 feet wide; three elevators. Concrete, brick and mill construction, plastered walls and waterproof floors are provided, with the main building of brick construction, having concrete basement and steel reinforced upper floors. The completed plant will employ about 75 men.

*Extracts from address by President Elbert H. Gary at annual meeting of American Iron and Steel Institute, New York, May 25, 1917.

Meeting Shortage of Labor Through More Attractive Homes

INTERESTING EXPERIMENT LEADING COTTON MILL OWNER OF GEORGIA HAS SUCCESSFULLY TRIED—FEATURES OF RECENT COTTON MANUFACTURERS' MEETING.

[Special Correspondence Manufacturers Record.]

Washington, D. C., May 25.

In assuming the office of the presidency, to which he was elected at the twenty-first annual meeting of the American Cotton Manufacturers' Association, held in Washington last week, Mr. Fuller E. Callaway of Lagrange, Ga., and one of the best known and most successful cotton mill executives in the South, pointed out some of the things which Southern cotton manufacturers should carefully study during the war period. He especially urged the need of a greater efficiency, lower cost of operation, and particularly the matter of labor to supplant that which would be drawn by the Government for army, navy and other purposes.

In an interesting way Mr. Callaway told of some experiments which he tried and which worked out successfully. To make possible the use of certain classes of available labor, he established a structure which he named "The Martha Washington Inn," and equipped it with modern conveniences of steam heat, shower and tub baths, laundry, reading-room and individual beds, so that it would make a thoroughly comfortable and modern home. This experiment was developed to attract the female labor from the mountain sections of Georgia, where, Mr. Callaway pointed out, there was a plentiful supply of Anglo-Saxon people who have practically done nothing in an industrial way for several hundred years, and whom he felt could now be put to work to their advantage and the advantage of the community.

So successful has this experiment proven that he is now adding an addition to the Martha Washington Inn.

Another equally successful experiment was another structure known as "The Benjamin Franklin Inn," which he developed to give employment to older men, those crippled or deformed in some way, but still able to perform certain tasks in a cotton mill, and those who through physical defects were not eligible for army or navy service. These men have been placed at various tasks in the mill, taking the places of men who will be likely called into service.

He also developed a plan for utilizing in a larger degree negro labor, stating that in certain classes of cotton-mill work the negro laborer was quite efficient. To overcome the dislike of white employees working among the negroes, he devised a plan of making the white man a sort of foreman or overseer, giving him a slightly higher wage and putting the negro under his charge, and in this way has had no difficulty in having the whites and negroes work harmoniously together and with excellent results.

By looking ahead and working out plans whereby the labor situation would be met during a busy time and when many operatives would be withdrawn from their regular work, Mr. Callaway's experiments will tend to solve what no doubt will prove to some a perplexing problem later on.

Mr. Callaway also favored the granting by the Interstate Commerce Commission of such increase in rates as they deemed fair to the railroads, stating that it was only by giving them such increase that they would be able to perform the service needed so badly by the shippers. He emphasized that for many years he had been known as an aggressive fighter against the things which he felt the railroads had been doing unjustly in the past, but that he tried to be fair in all of his fighting and dealings with the railroads, and recognized now that they were entitled to higher rates, and without an increase it would be impossible for them to broaden their service so as to supply the shipping needs of the country.

Much satisfaction was expressed on all sides upon the selection of Mr. Callaway as president during what promises to be the most vital and stirring era in the history of cotton manufacture.

Prof. F. W. Taussig, chairman of the Federal Tariff

Commission, explained in some detail the scope and functions of the Commission and how it was gathering together complete facts regarding all commodities so that these would be available for the use of Congress when needed in forming tariff legislation. He spoke of how this is becoming more and more a manufacturing country, and therefore a greater factor in the world's markets, and this, bringing about complicated international commercial relationships, would require considerable investigation and study in framing future tariff legislation.

He advised the cotton manufacturers that all efforts for foreign business would depend upon themselves, as they must make good goods in order to create a demand for them in foreign markets and to hold the trade after they got it.

An interesting address on the possibilities of foreign trade was made by E. A. Groff, manager foreign trade department, National City Bank of New York City. Mr. Groff discussed many of the important matters that have to receive consideration in building up a healthy trade in foreign countries, and incidentally outlined the scope and features of the co-operative work which the National City Bank is doing to help American manufacturers secure a larger volume of foreign business.

Resolutions were adopted recommending that that portion of the Keating bill referring to the employment of child labor between the ages of 14 and 16 be postponed during the war period, and another resolution pledged the full services and co-operation of the Association with the National Government during the war.

For the ensuing year the following officers were elected: President, Fuller E. Callaway, Lagrange, Ga.; vice-president, Arthur J. Draper, Charlotte, N. C.; chairman of board of governors, James B. Hammett, Anderson, S. C.; members of board of governors, Emslie Nicholson of South Carolina; C. E. Hutchinson, Mt. Holly, N. C.; A. W. McLellan, New Orleans, La.; chairman legislative committee, Stuart W. Cramer, Charlotte, N. C.; secretary and treasurer, W. D. Adams, Charlotte, N. C.

It was announced during the meeting that R. M. Miller, Jr., of Charlotte, N. C., who, since the organization of the Cotton Manufacturers' Association has been one of its most active and progressive members, serving in many important capacities in the work of the organization and one of its ex-presidents, has sold his interest in his cotton mill properties and would no longer be engaged in this work. Suitable resolutions were adopted, expressing the appreciation of the Association for Mr. Miller's work in its behalf, and electing him an honorary member of the Association.

After a service of 17 years, acting as secretary and treasurer of the Association, C. B. Bryant of Charlotte, N. C., announced the necessity of resigning his position in order to give more time to his growing personal business. Mr. Bryant was also by resolution made an honorary member, and in offering and seconding this resolution many members took occasion to express the great value of work which Mr. Bryant has given the organization during his long tenure of office.

As an expression of courtesy and gratefulness to the Rt. Hon. Arthur Balfour, chairman of the British Commission, in speaking before the meeting, Mr. Balfour was by resolution elected an honorary member of the Association, representing, as it does, one of the most important organizations of cotton mill owners in the world, and it was thought that such action could best show how the Association appreciated Mr. Balfour's presence among them.

The new secretary, W. D. Adams, comes to the Association well equipped to render efficient service. For some years he was connected with the Charlotte Observer, and during this time made a specialty of commercial and manufacturing interests. Recently Mr. Adams has been connected with the Government, han-

dling various commercial matters, so that his training has been such to enable him to give to the Association a service that will prove valuable in the larger work that lies before it.

After the adjournment of the meeting the members and guests of the Association were received by President Wilson at the White House.

One of the outstanding features as indicated in the remarks of all members addressing the Association on one subject or another was the loyal attitude expressed, showing how the cotton manufacturers are thoroughly and fully co-operating with the Government. The Government is dependent in a large sense for many important supplies upon the cotton mills, and they have shown themselves ready to put aside everything else and let the Government come first.

Considering the large armies to be raised and the vast amount of clothing and other necessities based upon some one form or another of cotton manufacture, this means that during the war period cotton mills are important factors, and have won widespread commendation through the fact that they are said to be the first thoroughly mobilized and organized unit in arranging to meet the Government's needs.

Beehive Coke Production in 1916.

The production of beehive coke in 1916 was the greatest ever recorded in the United States, and the average value per ton was higher than in any previous year. The official figures for 1916, just published by the United States Geological Survey, Department of the Interior, show that 35,464,224 tons of beehive coke, valued at \$95,468,127, were produced last year, an amount differing by less than 1 per cent. from the preliminary estimates of C. E. Leshar of the Geological Survey, published on January 1, 1917. The output in 1916 represented an increase over 1915 of 7,955,969 tons, or 29 per cent., in quantity, and \$38,522,584, or nearly 68 per cent., in value. The average value per ton of the coal used in making beehive coke in 1916 was \$1.26, an increase of 21 cents, or 20 per cent., and the average value of the coke was \$2.69, an increase of 62 cents, or 30 per cent.

The number of active beehive ovens in 1916 was 65,605, as against 48,985 in 1915, an increase of 16,620. The number of idle ovens was 25,976, as against 44,125 in 1915. Abandoned ovens numbered 2265, of which nearly 1800 were in Pennsylvania and West Virginia. No new establishments and but 104 new beehive ovens at old works were reported to be under construction at the end of 1916, a low record compared with recent years, especially in view of the high prices and steady demand for coke throughout the year. The coke producers evidently recognize the fact that the day of the beehive oven is passing, and that after the present abnormal condition is over most coke will be made in by-product ovens. The official figures showing the production of coke in by-product ovens in 1916 have not yet been compiled.

Cargo of Chilean Nitrate Reaches New Orleans

An initial shipment of 3000 tons of Chilean nitrate has been landed at New Orleans. The cargo was shipped in the *Coalinga*, a 12,000-ton tanker of the Union Oil Co. of California. This company, the second largest producing oil company in California, operates a fleet of 24 vessels between the California coast and Chile and the Hawaiian Islands.

O. B. Kibele, general superintendent of the Union company, traveled to New Orleans to meet the boat, and announced the hope that this shipment means the inauguration of further operations of the company's fleet into New Orleans.

The trip was made from Chile through the Panama Canal to New Orleans in 16 days, a fact as to shipping time which gives New Orleans an advantage as a receiving port. The *Coalinga* left without cargo to take on a load of oil at Tampico for Chile. It was announced that another cargo of nitrate might be expected in about 50 days.

Mr. Kibele stated that considerable business with South American ports might be developed if American ports will take the trouble to study South American markets and furnish such articles as are desired by South America, put up in packages sufficiently strong to stand the strain of a shipment.

Co-operation and the Mobilization of Public Sentiment*

By JOHN A. TOPPING, New York.

The President of the United States in his appeal to awaken the nation to its responsibilities urged that "we all speak, act and serve together" in response to our country's call. The President's appeal met a quick response from business, as evidenced by the mobilization of our financial, industrial, transportation, telephone and telegraph facilities, but our young men made a disappointing response to his urgent call for volunteers for army and navy service.

The lack of patriotic enthusiasm suggested by this experience is, I think, probably due to a lack of understanding by many of our people of the responsibilities of citizenship and of our national ideals. We cannot have unity of purpose, in my opinion, without a more thorough conception of individual responsibility; and to awaken this spirit of moral consciousness we must have a broader education of the people. In other words, if democracy as a governing force is to be effective, it can only be made so by qualifying the people through education, or by necessity, for their civic responsibilities. In no other way can legislative initiative be taken from the political demagogue. It required the stimulus and necessity of war to break down the traditions heretofore surrounding the volunteer system, and we are to be congratulated on this result, for we have obtained in exchange equal service, or selective draft, which means that the first gun has been fired for the principle of co-operation. And I believe the public mind is now in a receptive mood to apply more broadly this principle, not only through the reconstruction period after the war, as is proposed by the Lever bill for the regulation of commodity prices, but for an indefinite period thereafter, if we inaugurate an earnest educational campaign for general co-operation.

Necessity has originated many of our inventions, but necessity may also become, as in this case, a great educational influence. It must be admitted, however, that the necessities of war are decidedly more urgent than the necessities of peace, and therefore if public sentiment is to be mobilized and educated to a point of demanding co-operation, or other methods for the protection of business after the war, we must now, like England, prepare for peace while engaged in war. Notwithstanding the great responsibilities of war, the problems of peace are also urgent, and it must not be overlooked that war has brought about revolutionary economic changes, and a world-wide readjustment of values must necessarily follow war inflation, although I do not expect to see the purchasing power of the 1914 dollar restored for some time to come, if ever.

The new conditions and new influences now confronting us should be carefully studied, and business men must help solve future problems in a practical way, and must not, as heretofore, depend so largely upon academic thought for the solution of practical questions. To impress this view on the public mind, or to accomplish anything in an educational way, business men must take a more active part in politics, and in this manner curb the influence of the political demagogue, who heretofore has initiated most of the reactionary legislation from which business has suffered.

Co-operation, in my opinion, is the key to the solution of most of our national and business problems. In recognition of this view, co-operation as a principle has been adopted by the leading nations of the world. Only recently Mr. A. Bonar Law announced in the House of Commons that preferential tariffs as a policy had been agreed to by Great Britain and her colonies, and that hereafter closer reciprocal treaties and co-operative methods would be worked out between them and their allies. England, notwithstanding the burdens of war, through co-operative methods, has so coordinated her working forces that she has substantially maintained her maximum overseas trade, and has also

so effectually mobilized public sentiment favorable to the protection of general business that it is freely predicted she will abandon in the near future her traditional policy of free trade. England has also closely followed Germany in the policy of encouraging capital combinations for trade, even to the extent of assisting such combinations by Government loans, where necessary, thus recognizing that it requires big business to develop national resources or to successfully promote and maintain industry. The dyestuff trade is a notable case of this character. While co-operation as practiced by the various Governments now engaged in war, as claimed by some writers, may be a "real working of State Socialism," I maintain that it is at least enlightened socialism, for through the application of German and English business methods waste is minimized, efficiency and thrift stimulated and productivity increased. Germany not only proposes to continue her past co-operative methods, but also proposes to extend her syndicate operations in the future beyond a mere control of sales, her war experience showing that purchases can also be syndicated to advantage, and, furthermore, that capital investment when regulated will avoid unnecessary duplication of plants and thus prevent wasteful competition. I am convinced that we also must adopt co-operation as practiced abroad as a national system; also enter into reciprocal tariffs, and, furthermore, we must co-operate wherever possible, not only at home, but also with all foreign countries who are reciprocally inclined for the promotion of trade or for the protection of our other interests.

No doubt the objection will be raised that the European brand of co-operation is socialistic, but this objection, in my opinion, is sentimental rather than practical, particularly if by the application of co-operation we can advance the general welfare of our country. Furthermore, is not evolution by experience preferable to revolution by force; and does not the co-operative experience of the world justify setting aside former convictions born of other conditions?

The mobilization of public sentiment by educational processes, however, takes time, and we should not delay our efforts to "Wake up America" to the problems of peace and to emphasize the necessity for co-operation. To make this accomplishment practical and possible, constructive legislation of somewhat the following character seems necessary:

First—Amendments to the Sherman anti-trust act to legalize price co-operation, subject possibly to Government regulation, to become effective after the war, so as to prevent disorderly liquidation of commodity values during the reconstruction period, to stabilize values thereafter and for the protection of the general public.

Second—Revision upwards of the tariff where necessary to protect home trade against unfair foreign competition; preferential tariff rates, however, to obtain wherever reciprocal trade agreements can be made to our advantage.

Third—A thorough overhauling of our marine laws and the enactment of such amendments as will justify and encourage capital to permanently become interested in the operation of overseas shipping. If proper protection cannot be given capital to justify its engaging in overseas shipping and to successfully compete with foreign ships without subsidy, then in that event we should subsidize American shipping.

The method I would suggest for promoting the necessary preliminary campaign of education for the mobilization of public sentiment favorable to this legislative program would be co-operative publicity, which power is now generally recognized and recently was employed by the Academy of Political Science in calling a national conference of our leading citizens to publicly discuss and publish ways and means for improving our foreign relations, the object being not only to promote our diplomatic relations, but to extend our foreign commerce. Unfortunately, there are not many business men who are willing to devote their time to public affairs. But does not urgent necessity call for patriotic service in this direction? The Iron and Steel Institute Bulletin as a publicity instrument could be

made useful in many ways to assist in this work without sacrificing its general functions, and thus more completely justify its publication, without being subject to adverse political criticism.

I am thoroughly convinced that no executive or business man, particularly those who are directing the affairs of public corporations, will hereafter fully measure up to his executive or public responsibility who does not give these questions his most careful thought, and who is not also willing to devote at least part of his time to public service. Mr. Edward X. Hurley, former Chairman of the Federal Trade Commission, stated not long since that what business needed was constructive statesmanship. As to the truth of this there may be great difference of opinion, but that the country's affairs have suffered from lack of constructive statesmanship there can be no difference of opinion, and business organizations should drive home this thought to the public mind in the most emphatic manner.

In a recent discussion of this subject that I had with a prominent Senator he admitted that one of the great difficulties confronting the nation is that real politics and real business are not well acquainted; that neither fully understands the principles or the motive power that is driving the other side. Relative to this subject the editor of one of the prominent magazines also said to me that education must be made to include a more serious study of the relations of lawmaking and business; that business men should co-operate with newspapers in giving publicity to matters of public interest, and thus help educate the politician to business needs. Another editor of a leading trade paper stated that there should be co-operation among trade journals on editorial policy in support of general business propaganda. Even Washington, as has been recently remarked, now recognizes the value of co-operation, and of a "Gary dinner" when it is desirable to mark prices down. There is no doubt, I think, that the educational influences of co-operation for war, considered in connection with the Government's approval of the principle of co-operation for the promotion of export trade, will finally result in the approval of this principle for the regulation of general business operations. At least, we have made a start in this direction, for now, as one of the Allies, we are fully committed to co-operation for war. And will we not be automatically committed to the general scheme of co-operation after the war as a necessary condition to terms of peace?

I would therefore urge upon all of you to "speak, act and serve together" in the work of mobilizing public sentiment for co-operation, for the prevention of waste, for the conservation of our natural resources, for the encouragement of thrift, and for the general promotion of the public welfare. Let me also urge upon you to enlist for this service now; begin your campaign at home, educate your local Chamber of Commerce to our business needs, urge the co-operation of your local press, and also endeavor to educate your employees, as some employers now do, by the distribution of leaflets on pertinent subjects through the pay envelope, or by the distribution of other literature, to the viewpoint that your interest is their interest. Furthermore, we should impress upon our representatives in both the House and Senate that their co-operation in this general welfare work will hereafter be considered by their constituency as part of their official obligation. As a preliminary step towards educating the employe of foreign birth in the fundamentals of citizenship we should also give more active support to the Americanization movement by co-operating with the Y. M. C. A. and your local boards of education. As evidence of the practical character of this co-operative work, the Youngstown (Ohio) Americanization Committee reports that 144 foreigners, representing 16 different nationalities, were graduated during this month into full citizenship after passing all the educational tests required.

As both "big and little business" are loyally supporting the Government in times of war, "big and little business" should demand loyal support by the Government in times of peace, for only by co-operation can we completely co-ordinate our working forces for the protection and advancement of the nation during either war or peace. The Hon. Charles E. Hughes sums up our national situation in these words: "We have got the basis for success; what we now need is the motive power of unswerving loyalty and a real consciousness of national unity which will fill us with a dominant sense of patriotic loyalty to the United States."

*Address by John A. Topping, Chairman, Republic Iron & Steel Company, at annual meeting of American Iron & Steel Institute, New York, May 25, 1917.

Low-Priced Tractor for Farm Work Believed to Have Been Finally Produced

AFTER LONG PERIOD OF EXPERIMENTATION, HENRY FORD PUTS OUT MACHINE IN WHICH HE HAS ENTIRE FAITH—GOVERNMENT DECLARES USE OF TRACTORS A MATTER OF GREAT IMPORTANCE AT THIS TIME OF ABNORMAL FOOD REQUIREMENTS.

[Special Correspondence Manufacturers Record.]

Washington, D. C., May 26.

In Washington during the past week, on ground loaned by the Government, the Boy Scouts of the National Capital have put under cultivation a large tract of ground by means of one of the first tractors sent out from the factory of Henry Ford & Son of Detroit. Mr. Ford donated the tractor to the Boy Scouts and sent it on a private express car to Washington. It has been used continuously since arrival, and has proved its high efficiency.

The great significance of this event lies in the fact that Henry Ford believes he has solved the problem of a cheap and dependable farm tractor. On this problem he has been at work for a number of years, and until recently has withheld announcements of his progress.

practicable. The land must be turned, the seed planted, the crop cultivated and the harvest garnered with greater capacity.

Since the days of Eli Whitney the gathering of the cotton crop has been a perplexing problem. Cotton-picking time is the season for greatest labor stress and activity in the cotton belt. The slow process of gathering the staple by hand has proved not only expensive, but also so slow that the loss from rain and storms every year is large, varying with the severity of the equinoctial phenomenon.

The recent exodus of farm labor from the cotton belt and the enlistments of many young farmers make the condition more acute and subject that important crop to increased hazard and increasing loss and deteriora-

"Every farmer who owns a tractor," he says, "owes it to his country to do all the custom or exchange work he can do without neglecting his own crop. Every hour that his tractor would otherwise be idle it ought to be at work helping a neighbor who is behind-hand with his plowing or harrowing. Make your outfit work from dawn until dark; make it work all night if you have enough operators to fill the shifts. The acreage to be harvested hangs on the plow. Do not let an acre that might otherwise be planted go untillied because your tractor is in the shed. Help your neighbors and thus do your part in strengthening the allied lines on the battle fronts of Europe."

Most tractors are beyond the financial grasp of the average farmer, so that by placing a cheap reliable tractor on the market Mr. Ford has performed a service of most far-reaching importance.

Recently a huge advertising campaign was launched by a firm called "The Ford Tractor Co.," upon whose machines the word "Ford" was conspicuously stamped. Many prospective purchasers naturally inferred that this concern was owned or operated by Henry Ford. It developed later, however, that there was no connection whatever between Henry Ford & Son of Detroit and the Ford Tractor Co. of Minneapolis.

Laboring Industiously to Accomplish Results.

As to the outlook for the early introduction of the Ford tractor on an extensive scale, a report reached the MANUFACTURERS RECORD that there might be some modification of the plans to have many thousands of the machines in operation by fall. An inquiry sent the Ford factory at Detroit brought this reply:

Detroit, Mich., May 28.

Editor Manufacturers Record:

Mr. Ford intends to have tractors operating by fall, but this is conditioned upon many things likely to arise which might prevent. We are laboring industriously to accomplish the above, but can make no statement concerning ultimate results.

E. G. LIEBOLD,
General Secretary Henry Ford.

Alabama Attractively Described.

Agricultural, industrial and commercial resources of Alabama, together with the progress made in their development, are described in the "Alabama Land Book," compiled and edited by Lowry W. Statler, under the auspices of the Department of Agriculture and Industries of Alabama.

The book contains a detailed description with illustrations of the agricultural and business conditions in those counties of Alabama that have joined together in an earnest and well-planned movement under the Alabama Development Fund to stimulate, direct and maintain the growth of the State in a manner proportionate to its resources, opportunities and advantages.

The first few pages are devoted to State statistics and information regarding population, value of agricultural products, livestock, minerals, timber, water-powers, transportation facilities, banking, educational advantages, etc. After this general survey of the State's possibilities, the business and other activities of each county represented in the fund are described and the advantages of each pointed out.

The book is well illustrated with views of agricultural scenes, trucking and fruit-growing operations, cattle-raising and industrial activities of every kind, showing that Alabama offers a wide range of opportunities to the homeseeker as well as the promoter and capitalist.

The book will be sent to non-residents of Alabama upon receipt of 10 cents to cover cost of postage and mailing by the Alabama Development Fund, Montgomery, Ala.

The Cotton Movement.

In his report of May 25 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 298 days of the season was 11,989,950 bales, an increase over the same period last year of 258,523 bales. The exports were 4,831,836 bales, a decrease of 28,951 bales. The takings were, by Northern spinners, 2,621,388 bales, a decrease of 155,930 bales; by Southern spinners, 3,804,656 bales, an increase of 293,614 bales.



NEW TYPE OF FARM TRACTOR MANUFACTURED BY HENRY FORD & SON, DETROIT, MICH.
Photograph of tractor presented to Boy Scouts of Washington by Henry Ford. Photograph by Clinedinst Studio, Washington, D. C.

That he is now willing to subject his machine to a practical test is demonstrated by his furnishing one of the tractors for operation where the eyes of the nation may be focused on it, as it were, and his faith in the complete success of the machine is shown by his declaration in a recent letter to J. E. Mercer of the Department of Agriculture, who has interested himself in the problem of improved methods of cultivation by means of tractors. In this letter Mr. Ford said: "I intend to have between 25,000 and 30,000 tractors operating in this country by fall." Mr. Ford also informed Mr. Mercer that he is aiding the British Government in producing tractors for England.

It is believed by those who have investigated the matter that Mr. Ford has at last really solved the problem of placing within reach of any farmer with finances sufficient to purchase a horse, a machine able to do the work of six horses, and do it 24 hours a day if necessary.

The great advantage to the farmer in being enabled to buy, almost for the price of a good mule, a farm tractor which he can operate day and night for his own use is obvious. Not only can the agriculturist cultivate his own land better and more cheaply than by any other means, but he also has the material advantage of being able to lease his tractor to his neighbors, and so cultivate an entire community within a radius of many miles.

While the possibility of acquiring cheap tractors will be apparent to farmers everywhere, the benefits will accrue particularly to the Southern farmer in the planting of the cotton crop. Heretofore the one mule to one negro to one furrow system has been the Southern farmer's greatest handicap. It is no longer fully

tion with every day it is left in the field after the bolls are open.

The world needs now 14,000,000 bales of cotton annually, whether at war or at peace, and the American cotton belt must continue to produce what is needed. The question of land preparation, planting and cultivation will be largely simplified by the advent of a cheap farm tractor, augmenting the man power as well as the mule power, and although no practical cotton harvesting machine has yet been introduced, the simplification of the problems of preparing the crop will be of inestimable advantage in guaranteeing the average crop.

And the importance of the cheap farm tractor does not end with the cotton crop. It is applicable to an entire situation. Government officials in Washington are rapidly coming to a realization that the ever-increasing demands upon the United States for food supplies must be met not only with increased acreage, but by improved methods of cultivation.

With the calling out of many thousands of farm laborers during the next six months for military service, the problem of cultivating and harvesting crops will become acute.

This problem of labor shortage may be largely solved by the employment of a low-priced farm tractor, officials of the Department of Agriculture feel. The importance of the gasoline tractor to the farmer has caused the department to start a campaign of its own pointing to the advantages to be obtained by its use.

Recently Carl Vrooman, Assistant Secretary of Agriculture, through literature disseminated throughout the country, urged the increased use of farm tractors.

The German Potash "Monopoly"

THE DIRE THREAT OF PROFESSOR OSTWALD OF LEIPSIK ANOTHER OF GERMANY'S FALSE EXPECTATIONS.

RICHARD H. EDMONDS, in New York Times.

Attention has been called to the statement made by Professor Ostwald of the Leipzig University that Germany's potash supply would be used after the war "to dictate which of the nations shall have plenty of food and which shall starve." In view of this it may be well to suggest that this country is vigorously preparing to increase its potash production without waiting to be starved by Germany.

Reference has already been made to the potash-bearing feldspar of the country as a possible source of potash. While new methods may greatly increase the supply and lessen the cost of producing potash from feldspar, other work is actively under way in which potash is being produced as a by-product in cement making and in iron production. R. J. Wysox of the Bethlehem Steel Corporation has recently called attention to the fact that in the operation of the furnaces of that company potash is being recovered as a by-product. Charles Catlett, an eminent chemist and geologist of Virginia, a year ago suggested the great possibilities of potash as a by-product in the iron making interests of the country, based on investigations he had made, and on suggestions which Sir Lothian Bell, the great metallurgist of England, had many years ago made in one of his noted works.

Mr. Catlett was largely responsible for inducing a Portland cement plant at Hagerstown, Md., to put in a potash-recovery system which had been tested successfully by a cement plant in California. The success of this Hagerstown plant has been so satisfactory that the company is now carrying in one of the fertilizer papers of the country an advertisement in which it announces that its production is about 600 tons a month.

Recently Mr. Catlett and Dr. John Sharshall Grasty, an economic geologist, have called attention to the importance of having all the iron ores of the country tested for their potash contents, as some ores carry a much larger amount of potash than others. Formerly no effort was made to investigate the amount of potash in iron ores, and in most ores it is very limited, but some ores carry a considerable quantity. Dr. Grasty has an investigation made of many ores from all parts of the United States, and, so far as he has been able to discover, some ores in Eastern Alabama carry a larger percentage of potash than found reported in any other ores that had been analyzed, though investigation may develop large potash contents in other ores.

Referring to these Eastern Alabama ores, Mr. Catlett has recently written: "At the present common and current prices for potash this would be worth \$12 or \$15 per ton of iron produced." He also adds that we cannot ignore the fact that, with the destruction of shipping, potash must remain high for a number of years, and referring to the situation, says:

"Even at pre-war prices, a furnace working on the gray ores of Eastern Alabama, or a similar ore, with a by-product recovery plant, would have a credit of from \$2 to \$3 on the cost of the iron. This would be in addition to the collateral advantages derived from cleaning the gases."

Thus, between the pre-war prices of potash and the present prices of potash, somewhere between \$2 and \$3 up to \$12 and \$15 worth of potash could be recovered from these ores for every ton of iron produced from them, a very interesting proposition.

In the study of the production of potash as a by-product of cement and iron production, and in other industries, the nation is being stimulated to find sources of supply which will save us from dependence upon Germany for potash, and in doing this make it impossible, so far as we are concerned, for "Germany's power to dictate which of the nations shall have plenty of food and which shall starve." The success of work of this kind in saving hitherto wasted products will not only help to make us independent of Germany for potash, but will stimulate all other iron and cement making companies to investigate as to what amount of potash can be secured in these industries, while at the same time the whole world will be searched for new sources of potash.

Germany's belief that she can starve the world by withholding her potash is in keeping with many of the false expectations raised throughout Germany as to its future.

REMARKABLE RECOVERY OF SUGAR INDUSTRY IN LOUISIANA.

Crop of 1916 More Than Double That of Previous Year—Outlook for Still Further Increase This Year.

New Orleans, La., May 24.—[Special.]—In discussing figures of the United States Bureau of Crop Estimates showing that Louisiana's sugar crop for 1916 was more than double that of the previous year, Senator John Dymond, a recognized sugar authority, has this to say:

"The report issued by the general Government of the production of sugar in Louisiana expressed in pounds as against the conventional long ton of 2240 pounds in which sugar data are now generally compiled has led to some confusion as to the relative size of the sugar crops produced in Louisiana and as to what we may expect for the growing crop.

"These Government statistics now report the 1916 sugar crop of Louisiana at 607,800,000 pounds, as against 275,000,000 in 1915. These figures reduced to long tons would place the Louisiana crop of 1916 at 271,339 long tons, as against the crop of the previous year of 122,768 long tons, or an increase in a single year of 148,571 tons, or more than double the previous crop. The great increase in a year is, of course, a feature.

"This extraordinary increase in the Louisiana crop was, of course, brought about by the high prices realized in the autumn of 1914, after the outbreak of the war in Europe. The large amount of cane saved for seed thus prevented the crop of 1915 from reaching its normal limits, although progressing under the assurance of at least a cent a pound protective duty on sugars and stimulated by the high prices prevailing at that time because of the war in Europe, but also confronted with free sugars May 1, 1916, under the then existing law.

"Before the passage of the Underwood bill, in 1913, the sugar crops of Louisiana varied from 300,000 to 350,000 long tons, and the generally low prices for sugar prevailing throughout the world left but little margin of profit in the business in Louisiana. The Underwood bill then following, reducing the duty on sugar and indicating free sugar in 1916, produced ruinous conditions that reduced the crop of 1914 to about 221,000 long tons and that of 1915 to 123,000 long tons by the double causes, the positive contraction of sugar-cane growing under the Underwood bill and then by the subsequent considerably increased savings of seed cane on account of the promised cancellation of the free-sugar clause of the Underwood tariff bill and also by the enhanced prices of sugar.

"From these conditions we have the rapid recovery of 1916. The present high prices prevailing for sugars cannot be expected to prevail after the European war is over, but the marvelously increasing appreciation of sugar as a foodstuff and the enormous indebtedness of our country now combine to give a degree of permanence to the future prosperity of the sugar industry in Louisiana that it has not had for many years. Throughout the whole State evidences of rapid recovery from the past depression of the industry are manifest, and new construction and the repair of old factories are announced from all quarters."

As to the outlook for the coming crop, Senator Dymond said that the agricultural side of the industry thus far this season has been satisfactory. He said that the seed cane was good, and that it had been well planted and the fields looked well, but that unseasonably cool weather had prevented the planters from having the green fields on the first of May that is the old Creole standard for a promising cane crop.

From inquiries I have made generally, it seems likely

that the sugar crop of this year may reach 700,000,000 pounds, which would be about 1,000,000 pounds greater than the crop of 1916, but still much short of the maximum crops raised here prior to 1913.

CAN CONGRESS TAX MUNICIPAL BONDS?

United States Supreme Court So Decided Twenty-two Years Ago—Important Review of Legal Points.

Because there has recently been raised the question whether Congress has the power to tax municipal bonds, the word municipal being used in the financial world to include all public bonds, particular interest attaches to an important contribution which W. T. Childs of Baker, Watts & Co., bankers, Baltimore, makes to the columns of The Bond Buyer of New York, in which he argues strongly that Congress is without authority to impose taxes on these securities.

Mr. Childs says that the question was answered in the negative by the United States Supreme Court on April 8, 1895, when Chief Justice Fuller handed down the opinion in the case of Pollock vs. the Farmers' Loan & Trust Co. of New York, in which action Chas. Pollock and other stockholders opposed the payment of tax to the Federal Government on income from bonds of the city of New York owned by the trust company, the directors having decided to pay the tax, which was imposed by an act of Congress that had become law without the President's approval.

In this decision the opinion of the United States Supreme Court said:

"The Constitution contemplates the independent exercise by the nation and the States severally of their constitutional powers. As the States cannot tax the powers, the operations, or the property of the United States, nor the means which they employ to carry their powers into execution, so it has been held that the United States have no power under the Constitution to tax either the instrumentalities or the property of a State. A municipal corporation is the representative of the State and one of the instrumentalities of the State government. It was long ago determined that the property and revenues of municipal corporations are not subjects of Federal taxation." Several legal references are made in this connection in the course of the opinion, including a previous decision of the United States Supreme Court. The opinion further said:

"A tax upon income derived from the interest of bonds issued by a municipal corporation is a tax upon the power of the State and its instrumentalities to borrow money, and is consequently repugnant to the Constitution of the United States."

Again the opinion said, more comprehensively: "So much of the act * * * as provides for levying taxes upon rents or income derived from real estate, or from the interest on municipal bonds, is repugnant to the Constitution of the United States and is invalid."

Mr. Childs says, however, that the adoption of the Sixteenth Amendment to the Constitution, giving Congress "power to lay and collect taxes on incomes from whatever source derived," caused more or less unrest, although the Federal income tax law, approved September 8, 1916, specifically exempts municipal bonds from taxation, and interest from such bonds is not required to be returned in owners' statements of their income, this applying to both normal tax and the surtax.

The recent agitation of the question of this taxation arose from Secretary McAdoo's suggestion that income from municipal bonds be taxed to raise war revenues, and as to this Mr. Childs says that while the States might individually consent to Federal taxation of new bond issues, that is, bonds to be issued, they could not do so concerning issues previously made without violating the Constitution, which prohibits the States from passing any law "impairing the obligations of contracts." He also says it is apparent that such action would impair the obligations of contracts which the States individually made when they sold their securities.

After considering extensively and minutely the State tax exemption of municipal bonds, Mr. Childs states, in reference to the main question that the United States is without power to tax them, that this opinion is held by Elihu Root, Cadwalader, Wickersham & Taft and Oravath & Henderson, and no such array of legal weight has yet come forth with a contrary opinion.

Diminishing Petroleum Supply Serious Problem Confronting the Country*

By VAN H. MANNING, Director U. S. Bureau of Mines.

Any remedy that can be applied to the petroleum and gasoline situation will come through conservation, which does not mean tying up, but a wiser use of what we have.

In the year 1916 there were 2,750,000 automobiles, or an increase over the year 1910 of 2,350,000.

The increased number of automobiles in 1916 used 1,000,000,000 more gallons of gasoline, or 28,000,000 barrels more than the automobiles in 1910.

This increased use of gasoline for the increased number of automobiles alone represented a little more than half of the total output of gasoline in the country in 1916 for all purposes, the total production being about 54,000,000 barrels. As the number of automobiles is increasing with each day, there is a tremendous problem in this feature alone.

The total gasoline engine horse-power built and sold in the United States in 1913, according to the Federal Trade Commission, was 11,200,000, and in 1915 the output had a little more than doubled, the figures being 22,500,000.

These figures indicate the increased use of gasoline power more clearly than those which cover only the automobiles, as these include all types of gasoline-driven machines which have been developed and increased in use in a way no less surprising than that of the automobile itself.

The apparently unsolvable puzzle about this is that while we have been increasing our production of gasoline, the production of automobiles has increased 200 per cent. above the increase in gasoline production. These are the facts that we must face. Where is it going to end?

Statistics indicate that of the gasoline produced in the United States, between 55 and 60 per cent. is used in the automobiles of the country; 20 to 25 per cent. is exported, and the balance is used in stationary engines, in motor-boats, tractors and for various purposes of minor importance.

As the highways of the country are improved, the commercial trucks, consuming large quantities of motor fuel, are becoming important means of transportation in many localities. The fishing fleets of our entire coasts have installed gasoline power to replace their original sailing equipment. These fleets, with the many pleasure craft, operated mostly in the summer months, when the production of gasoline is most heavily taxed, use large quantities of this convenient liquid fuel. There seems no reason to believe that the call for gasoline will in any way be reduced; in fact, a much larger demand seems imminent.

The production of gasoline depends upon our supply of petroleum. Petroleum and its products have become essential to our very existence. Gasoline is a very important product, but there are many others. The operation of hydro-electric generators, of railway and trolley cars, of the machinery of the factories, of internal-combustion engines, of our battleships and our merchant ships—in fact, of all machinery, is made possible by the use of lubricating oils, and these come from petroleum. Petroleum lubricates the machinery of the nation from the handicraft of the watchmaker to the dreadnaught of the navy.

The industry has progressed since its beginning, a little over half a century ago, when it was possible to store the entire production in tin cans and wooden barrels, to the present, when the annual quantity produced requires great steel, concrete and earthen reservoirs for its storage, great pipe lines for its transportation and fleets of specially constructed vessels for its exportation.

In discussing briefly the supply and demand for petroleum in this country for the last few years, permit me to say that the stored reserve of petroleum is the most stabilizing influence in the industry. I wish also to bring out the fact that during the last few months our increased consumption has made it necessary to draw oil from this storage, which has convinced many people that our present supply has reached a point where it may

never again be sufficient to fill easily the demand placed upon it, unless some radical steps are taken to conserve its use. One of these steps frequently mentioned, and one that is slowly dawning upon our consciousness, is that the burning of crude petroleum under boilers for the generation of steam ought to be stopped. In this way large quantities of priceless by-products are being consumed with about the same abandon as an arson fiend destroys valuable property. I understand, however, that some of the Western railroads that have been guilty of this practice are beginning to change their oil-burning locomotives to coal locomotives. One of their reasons in the past for burning oil in this manner was that it was then cheaper than coal, but this reason is fast disappearing.

In the year 1916 the marketed production of crude petroleum was, according to the estimate of the United States Geological Survey, 295,000,000 barrels. The stocks held by various pipe line and transportation companies at the end of January, 1916, according to various trade journals, amounted to approximately 170,000,000 barrels; at the end of 1916 the stocks amounted to 150,000,000 barrels, which represents a decline of 20,000,000 barrels, even in the face of our greatest annual marketed production of 295,000,000 barrels.

If consumption of crude petroleum exceeds production, the difference must be drawn from storage. The question that naturally presents itself here is, What of the future? During 1915 the normal consumption of crude petroleum was 12 per cent. greater than in 1914, and last year our consumption exceeded the 1915 consumption by 13 per cent. Estimating that the normal peace consumption for this year will increase at the same rate, or 13 per cent., our consumption for 1917 will exceed that for 1916 by about 40,000,000 barrels.

This does not take into consideration the increased demand for petroleum and its products due to the entrance of this country into the war. Although this increased demand because of the war is difficult to estimate, obviously the increased use for various war purposes will greatly enlarge our consumption above the rate which prevailed during times of peace. The production of crude petroleum in this country during last year is thought to have reached high-water mark, and it is very likely that the production for 1917 will be smaller than it was last year. If the normal and war demands for petroleum can be filled, the difference between the estimated production and consumption during this year will amount to probably as much as 60,000,000 barrels, an amount which must be drawn out of storage. With only about 150,000,000 barrels of crude petroleum in storage at the first of this year, and with the prospect of it becoming necessary to draw from that reserve probably 60,000,000 barrels to fill that demand, it becomes more apparent that some radical steps must be taken to meet the situation.

It may be that as the shortage becomes more apparent the demand may lessen, but the calculations as given show the present tendency of our supply and demand and make it of the most importance to meet the situation with as little confusion as possible in our industrial life and without in any way hampering the outcome of the war.

We should not pass over the situation with an optimistic statement that when the time comes new fields will be discovered, as has happened in the past, or that new methods will be found whereby this threatened shortage will be overcome. We should undertake to anticipate this problem as best we can, for we certainly will encounter it in the not distant future.

While the present increase in the number of pleasure cars may not continue, it is plain that the use of gasoline for power in many commercial fields has not yet fully developed, and as this use widens it will more than overcome any falling off in the rate of consumption of gasoline in the cars used for personal purposes, if such falling off should occur.

The fact we must face is that the production of petroleum is not increasing as rapidly as the production and consumption of gasoline. The petroleum in time will

reach its maximum production and start to decline. What we are doing now is looking to more efficient methods of production from the oil sands, the production of more gasoline by the so-called cracking process, the extraction of vapors from natural gas and the utilization of liquid fuels from other than petroleum bases.

More efficient methods of production are now being developed, such as the Smith-Dunn process for forcing oil from the sand by the use of air or gas under pressure.

The cracking of petroleum last year furnished 7½ per cent. of the total gasoline production, and can be and is being developed and installed rapidly in most of the larger fields of the United States. Its possibilities are enormous.

The treatment of natural gas by compression, refrigeration and absorption produced 60,000,000 gallons of gasoline of such low boiling point that it was mixed with equal parts of naphtha to form 120,000,000 gallons of good motor fuel. The compression and refrigeration process of extracting gasoline from natural gas, when first used, treated only gases containing three gallons or more of condensable vapors, but at the present time the development of the process and the increased price of the product make gas carrying one gallon profitable. The extraction of gasoline from gases containing less than one gallon and as small a quantity as one pint per 1000 cubic feet is now being profitably carried on by the absorption process, which is well adapted to treating lean gases in large volumes. Another source of petroleum which will undoubtedly be developed in time is the shales containing considerable quantities of oil, but which, at present prices of crude oil, cannot be extracted commercially.

Substitutes for gasoline, such as the products of the distillation of coal, are being used at present in Europe for motor fuels, and may in time be used for that purpose in this country, as many by-product coke ovens are now being constructed.

Mississippi Farmers Returning to Wheat.

Jackson, Miss., May 28 — [Special.] — Wheat, which was at one time one of Mississippi's largest crops, but which has been abandoned for years almost entirely, is coming back into its own. Recent high prices have turned the attention of Delta landowners to the great grain crop, and several large acreages have been planted. One of 1000 acres is on Potosi plantation in Yazoo county. The estimated yield is 25 bushels to the acre, which at even \$1 a bushel, much below the present price, will bring in \$25,000 for the crop, and 400 acres of the land are sown in lespedeza seed. The yield of seed alone from this planting will average 14 bushels to the acre, which, at prevailing prices, would give a total of \$16,800 from the lespedeza, or \$41,800 from the 1000 acres. Counting the hay from the lespedeza, the tract will bring in about \$50,000.

A few such successes will turn the vast plantations of the Delta into wheat fields, for cotton is proving less and less satisfactory, and wheat is a "money crop" as much as the staple.

Several small flour mills have been purchased in different parts of the State to take care of the wheat grown at home.

Sweet Feed Manufacturers Organize.

For the purpose of co-operating in acquainting and educating the public regarding the Sweet balanced ration as an economic and efficient stock food, the Sweet Feed Manufacturers' Association has been organized with the following officers: President, Will A. Hall, manager International Sugar Feed Co., Memphis, Tenn.; vice-president, E. Wilkinson, president Western Grain Co., Birmingham, Ala.; treasurer, G. E. Patterson, treasurer G. E. Patterson & Co., Memphis, Tenn.; secretary, P. M. Birmingham; directors, J. W. Anderson, president Kornfalfa Feed Milling Co., Kansas City, Mo.; J. M. Cook, assistant manager Riley Feed Manufacturing Co., Pine Bluff, Ark.; J. T. Morgan, Edgar Morgan & Co., Memphis, Tenn.; H. V. Arnett, manager National Milling Co., Macon, Ga.

The office of the association is located at 1032 Bank of Commerce Building, Memphis, Tenn., where full information as to the scope and work of the association will be furnished to those interested in this question.

*Extracts from an address on "The Petroleum and Gasoline Situation," delivered by Van. H. Manning, Director United States Bureau of Mines, before Editorial Conference of Business Publishers Association, Washington, May 25, 1917.

News and Views from Our Readers

The Need of More Iron and Steel.

WILLIAM METCALF, JR., President Braeburn Steel Co.,
Pittsburgh, Pa.

I have read with considerable interest your open letter of May 22, addressed to American iron and steel men.

While there may be a considerable menace to the welfare of our nation owing to the existing condition in the iron-ore industry, as suggested by your letter, you do not propose any very comprehensive plan by which the situation may be remedied. It is all right to suggest that the South and Southwestern ores might be used to advantage, and I have no doubt that they could be so used provided they were put into such marketable condition as would best serve not only as a means of protection, but as a means of upbuilding works that have been destroyed.

To the writer's way of thinking, the situation is fraught with other burdens than the mere question of extracting iron ore from the earth. There is no branch of the iron and steel industry that is not greatly handicapped by reason of its inability to meet the demands made upon it. If it were possible to take the ore in question and immediately convert it into pig-iron or muck bar, then by all means let us get together and make such conversions. It would take not only many months, but perhaps years, to construct blast furnaces and rolling mills to make such conversions. I happen to know of one company engaged in the manufacture of rolling-mill equipment that could not possibly begin to make deliveries on machinery before two years from the present date.

If there were a considerable number of blast furnaces and puddling furnaces out of use that could be placed in operation as soon as the ore is delivered to them, then your suggestion that the Southern ore be used is a wise one. As a matter of fact, all iron-producing facilities of the United States are working to the utmost of their capacity, so that even if the ore were above the ground where it might be used, there are not facilities for making the conversion into iron or steel.

I heartily agree with you that if there is any danger, even a remote one, of the Soo Canal being damaged so as to stop or hinder transportation, then the Governments of the United States and Canada should see to it that a sufficient number of men guard the Soo Canal and river throughout their entire length so as to insure that they will not be damaged by our enemies.

It occurs to the writer after reading your letter that to merely call attention to weaknesses without being able to set forth some comprehensive and practicable remedy serves no good purpose, and, in fact, may work to our harm. I appreciate the fact that your letter was sent out in the spirit of helping, but it seems to me that just now it falls short of its purpose.

[It is entirely true, as Mr. Metcalf suggests, that it would take months to build furnaces and rolling mills, but for several years the MANUFACTURERS RECORD has been forecasting exactly the condition that now exists and urging the iron and steel people of the country to prepare for this situation by developing iron and steel interests in the South and Southwest. We cannot depend any longer on existing plants. We must build new plants to take care of the needs of the next five or six years, even though it may take a year or two to build additional plants. We are living in a strenuous time, in which it is exceedingly difficult to construct new plants; but if we stand still, depending entirely upon those which we now have, we shall lose. Existing plants will not provide the steel that will be needed to enable this country to make a success in the fight with Germany. New shipyards must be built, and are being built, some on an enormous scale, and in the same way we must build iron and steel plants, and begin their construction now, or find ourselves terribly handicapped in the contest upon which we have entered.

Mr. Metcalf is thinking only of the acuteness of this particular moment, not looking to the future. But this acuteness will grow steadily worse unless we meet the situation by developing new iron and steel interests.—
Editor MANUFACTURERS RECORD.]

Mr. Wood Asks Many Questions—Some Showing He Does Not Understand the Economic Effect of Exchanges and Some That He Does Fully Understand the Farmers' Needs.

JOHN WOOD, Secretary Chamber of Commerce, Roanoke,
Virginia.

Am I correct in believing the Chicago Board of Trade to have been created for the purpose of facilitating the actual trading in commodities, of furnishing means for bringing buyer and seller together?

If I am correct in that belief, why would it not be reasonable and fair to compel that organization to return to the objects for which it was formed? Why should not the Federal Government place its agents on the floor of the Board of Trade and see that bona fide transactions only are permitted? Why should it not go a step further and jail every man who buys with no expectation of ever having his purchase delivered to him? Why should I pay for flour or other necessity a price affected, even to the smallest degree, by licensed gambling?

Do you recall the commotion caused on the New York Cotton Exchange when a group of South Carolina mill men, assuming that the exchange was for the purpose of facilitating the buying and selling of cotton, bought cotton on the exchange and demanded that the same be delivered to them? If I remember aright, the action of the South Carolina mill men was regarded with amazement and officials of the exchange went so far as to appeal to the Federal authorities, claiming restraint of trade and violation of the Sherman Anti-trust law.

Why should the price of my clothing, the price of the farmers' crops, the price of living, be affected by those whose only interest lies in the winning of a bet that a commodity will go up or down?

And again. If the Government can take over railways, manufacturing plants and human beings for war purposes, why may it not take over the grains now being made into liquors and use them for commissary purposes and in keeping suffering and want from those who must have these grains and cannot earn enough to enable them to buy them?

And again, may I hope that the war situation will change the attitude of those in cities and towns towards the farmer? May I hope that they will be forced to realize that the farmer must be taken into partnership and permitted to have the facilities for intelligent marketing of his wares and not be left to be the goat of those who take advantage of his lack of information? May I hope that the time has come when American people will shake off their selfish disregard for the other fellow and appreciate that our interests are interdependent and must all be fostered if the structure is to be solid and capable of weathering the period of stress?

And may I hope that I have not been utterly foolish in asking the above questions?

Shall We Halt Economic Development?

BRENT ALTSHELER, Louisville, Ky.

America's entry into the war has interrupted civic advancement. Real estate owners in Louisville, Nashville, Atlanta and other Southern cities have taken "cold feet" and called off projects which were on hand before the declaration of war. I had procured loans for some of them—hotels, office buildings and apartment-houses—and the lenders were willing to consummate the loans, but the prospective borrowers lost heart. Of course, lenders always appreciate conservatism and caution on the part of borrowers, but is it not a grave error to halt economic development on account of even acute international complications? Armour and other big merchants seem to think so. The President and his Cabinet would not have war preparations threaten all other activities, including real estate improvements. Should not the country's great and general productivity continue and increase?

As a matter of fact, some thoughtful persons believe actual war will have a tendency to dissipate cowardice, commercial and other kinds; that a reaction will

shortly set in and that the nation will soon enter an era of intense business activity and that those who do not now get ready for it will be left in the lurch.

The colossal sums Uncle Sam is investing in war preparations but serve to stimulate tremendously the circulation of money, and all the foreign loans are but credits extended to huge foreign customers. Even our own produce and manufactures must follow our navy and army to Europe.

Should not and will not the erection of new hotels, office buildings and apartment-houses continue with but a momentary halt? I leave the correct answer to you and your army of thinking readers.

For "The New Time" of New Thought Forces.

E. W. RAPIER, Jacksonville, Fla.

The writer has read with interest the many commentaries published in your good paper recently in reference to our Governor, Sidney J. Catts, and also on the various phases of the war, and man's relation to his country, etc., and from the different expressions or views on the subject I realize that every man is right from his own point of view, perfectly all right at the moment he has expressed his views, but in the new moment he can do better.

Every act or impulse in this universe expressed at the present moment is but a step to that higher unfolding of the God-hood or universal good to which the world is now rushing.

This war, while filled with all the hellishness, so-called, is what man has created, and yet in a way, the God Principle is actuating it, using it, as it were, for a stepping-stone to the realization of that great and lasting peace, love of fellow-man, and universal service, and the sooner the Hohenzollern head realizes this great truth and opens his mind so that his soul can begin to grasp the understanding of the fact that he is wasting his best efforts in appealing to that higher power he calls the Almighty to send success to his arms to prolong the useless struggle for his purely selfish purpose, and begins to realize that he is playing a losing game, the sooner he will begin to attract that peace to which all well-thinking people are sending out strong thought forces today.

I note the expression has frequently been used in classifying the devil as the Prince of Hell in some of the various articles of your paper, and rather think could have been couched in some milder form as just an error in not thinking far enough, for in reality there is no physical devil, such as we were taught in our younger days, but only physical conditions which man has created in the perversion of the law of universal good.

However, the various writers on these interesting articles are perfectly all right from their own point of view as they see it this moment, even our good Governor, Mr. Catts, who is doing his duty to his country to the best of his ability as he sees it, and instead of always being at swords' points with him, there should be a union of co-operation and harmony in action and plus what he has already accomplished that is good and in the new time we can all do better and help make this a better and more beautiful world in which to live, and move, and continue our being.

Yours for the new time.

Great Possibilities in Cottonseed Flour.

U. S. SENATOR MORRIS SHEPPARD, Washington, D. C.

It has given me great pleasure to read the article in a recent issue of the MANUFACTURERS RECORD on the subject of cottonseed flour.

Truly there are great possibilities in this direction, not only for cottonseed flour, but for flour made from peanuts, dried peas, feterita, milo maize, sweet potatoes and other Southern products. The cottonseed bread which I had served in the cafe of the United States Senate last Saturday made quite a favorable impression. A number of Senators indicated their intention of following the matter up and of having the flour introduced into their own States.

NORTH CAROLINA'S GREAT ADVANCE IN SCIENTIFIC AGRICULTURE.

Demonstration of State-Wide Benefits from
Organized Effort—Extracts from Illumi-
nating Report of Director Kilgore.

Remarkable results from the activities of the North Carolina Agricultural Experiment Station and Extension Service are shown in the annual report of Director Kilgore, recently made.

"The past year has been one of great progress and achievement, the greatest year of the work in amount and value of services rendered," Director Kilgore says in the course of the report. "These services are reflected in substantial betterment of farming and farming conditions, and it would not have been possible to so quickly arouse our people to the urgent need of meeting the present great demand for increasing the production of food and feed crops but for this work in agriculture and home economics which has been carried on during the past several years. The work has not been confined to actual experiments and demonstrations in the laboratories and on experimental plots, but it has reached out over the State to the branch stations, local farms, schoolhouses, communities and farm homes, carrying a knowledge of better living, better farming conditions and a higher social life to the women, men, girls and boys on the farm.

"Of the records kept, our workers during the year traveled 639,508 miles by rail and conveyance; they held 23,793 meetings and conferences, at which approximately 2,163,430 people were present; the workers wrote 95,453 letters during the year; sent out 617,035 bulletins and circulars; they conducted 14,135 crop demonstrations on 70,369 acres; put out or in some way helped to handle, prune, spray or care for 235,873 fruit trees; brought in 1650 head of pure-bred livestock; they helped to build 304 silos; assisted in installing 586 home water systems; they encouraged and gave help and advice in painting 866 farm homes; did the same with 641 lighting systems; they otherwise helped in living conditions at the farm home by aiding in the improvement of 180 home grounds, the screening of 4072 homes, the improving of sanitary conditions at 2971 and the constructing of 478 manure sheds; they advised in the establishment of 11,058 pastures; had 229,521 acres planted in clover and soil improving crops; established 103 cream routes; organized 10 credit unions; graded 33,000 bales of cotton; laid out and helped put in 50,800 feet of tiling; laid out and aided in constructing 95,000 feet of terracing; conducted 8918 demonstrations for women, girls and men; enrolled a club membership of boys, girls and women of 14,772 persons and had put up 680,551 containers of various kinds of food products.

"When all these meetings, enrollments and services are put together it will be seen that by the attendance on meetings and conferences, by the people reached with letters, publications and club enrollments, 2,890,000 people were reached during the year. Of all services performed or things done there is a total of 1,248,530, which makes a grand total of persons reached and services performed of 4,802,471—a record never before equaled in North Carolina.

"In performing these services," continues Director Kilgore, "there are at present 199 men and women connected with the Agricultural Experiment Station and Extension Service of the College and Department of Agriculture, nearly all giving full time to the work, and divided as follows:

Extension Specialists in various lines.....	32
Work of Investigation in Experiment Station.....	48
Men County Agents (68 white, 4 negro).....	72
Women County Agents.....	47
Total	199

"While much has been accomplished, there is much yet to be done. There are 100 counties in the State. Only 66 of these have county agents and 47 have women agents. The idea is to continue until there is a good strong man and woman in each county through which the various specialists in the different divisions will operate in carrying their findings in demonstration to the farm."

In making note of what the different divisions of the organization have accomplished during the year and in calling attention to the things to be stressed through the coming years the director calls attention to some work with soy beans which has been done by the division of agronomy. This division has studied the plant-

food requirements of the different types of soils; the adaptability of crops to these soils; the improvement of leading field crops by proper seed selection, and extension work in carrying this information directly to the farmers. As in previous years, much effort has been devoted to increasing the growth of soy beans in all parts of the State. As a result of these efforts much wider interest has been shown in soy beans growing in North Carolina and over the entire country. Thousands of bushels of North Carolina soy beans have been shipped out of the State this year for canning, as well as for other purposes.

An important feature of animal industry work was establishing cheese factories in the mountains of Western North Carolina. Ten were established during the year making a total of 13 in operation, with an output of about 790,000 pounds of cheese per year. Animal industry work is also being carried on with poultry, beef cattle, sheep, swine, dairy cattle and dairy farming, the undertaking being so outlined as to cover the main questions which have arisen in connection with these industries in the State.

New \$300,000 Courthouse for North Carolina County.

Within a few weeks plans and specifications will have been completed and bids invited for the erection of a handsome new courthouse for Guilford county at Greensboro, N. C. The building will be approximately 170x74 feet, of reinforced concrete construction with a granite, limestone and terra-cotta exterior and Barrett specification roof. The interior will be arranged for two courtrooms, including offices and rooms in connection with the court chambers, offices for the county officials, offices and auditorium for the Board of Education, restrooms,



GUILFORD COUNTY COURTHOUSE, GREENSBORO, N. C.

etc. Jail quarters will be installed in the upper story. Steam or vapor heating equipment will be employed. The cost of the building has not been definitely determined, but it is estimated that it will cost about \$300,000. Plans are being prepared by Harry Barton of Greensboro. An accompanying illustration presents a view of the structure as it will appear when completed.

To Demonstrate Tractors for Sugar Planting in Louisiana.

New Orleans, La., May 25.—[Special.]—Sugar planters of Louisiana will be interested in the display that is to be made at their "field day" at the Louisiana Sugar Experiment Station, Audubon Park, New Orleans, by the manufacturers of mechanical devices that tend to take the place of help and stock in sugar planting.

Director William G. Taggart of the experiment station has received word from a number of firms that they will demonstrate on the grounds June 14, and that this exploitation of tractors will be the predominant feature of this meeting. There is a great deal of interest being taken in tractors, as the makers have at last adapted

them to sugar work, and it has been predicted by many that the mechanical plow is to supersede that drawn by the mule to a large extent throughout the sugar section of Louisiana.

According to the announcement of Director Taggart, the Southern Moline Plow Co. has arranged for what it claims to be the most complete agricultural exhibit ever made in this part of the country, embracing its "Moline" tractor and other special cane tools. The Avery Company of Peoria, Ill.; International Harvester Co., Allis-Chalmers Company, Dayton-Dicks Company, Chief Tractor Co. and other traction concerns will give actual demonstrations on the field in the experimental cane tracts.

A. M. Lockett & Co. also intend to make an irrigation demonstration on a special plot of land, and a number of new inventions relative to cane-cutting mechanically will be put to a test before the attending planters and others interested in the sugar industry.

From a Salonica Merchant.

RICHARD FRANCES, Salonica, Greece.

All that you have done for me in aiding my search for products of iron has been attended with good results; offers have been made me from many directions. They tell me that they owe knowledge of my address to the Museum of Commerce of Philadelphia. I suppose it is you who gave it them. Difficulties in the way of transporting merchandise from America are great, and one finds many in the way of business transactions on account of freight charges and insurance against risks of war, which so increase the cost of goods that I find myself obliged to postpone important orders to America until a later date.

Organized to Manufacture Fertilizers.

The manufacture of fertilizer is the purpose of a \$500,000 company which has been chartered at Richmond, Va., with M. C. Patterson as president. The Nitro-Phospho Corporation is the company's title, and its officers include T. S. Winston, vice-president, with John Landstreet as secretary-treasurer.

To Manufacture Carbide in Virginia.

Carbide will be manufactured by the National Carbide Corporation of Ivanhoe, Va., which has been chartered with a capitalization of \$350,000 and the following officers: H. G. Buchanan, president; Holt S. Lloyd, secretary-treasurer.

Electric-driven machinery with daily capacity 2000 dozen pairs of hose will be installed by the Southern Finishing Mills, Thomasville, N. C. This company wants prices on dyehouse equipment and boarding-room machinery.

MAGNESITE BRICK PLANT ESTABLISHED AT BALTIMORE.

American Refractories Co.'s New Plant to Be Ready for Operation June 1.

The new plant of the American Refractories Co. will be opened June 1 in Brooklyn, Anne Arundel county. The plant will have an output of 30,000 magnesite and chrome brick daily, the bricks to be used in the manufacture of high-grade steels and to be sold principally to steel and copper plants throughout the country. The new plant at Brooklyn, which cost about \$500,000 to erect, is one of seven in the country owned by the American Refractories Co. of Joliet, Ill., and will employ about 75 men, with an approximate annual payroll of \$50,000. The controlling company owns the largest magnesite deposits in the world, owning vast holdings in Austria under the name of the Austro-American Magnesite Co. Previous to the war, materials from these mines were used in the manufacture of the products of the plants in the West. Ships brought the material to the Atlantic seaboard, and it was then taken overland to the various plants. Then much of the brick output was shipped again to the Eastern steel plants, thus necessitating many handlings and added increase in cost because of freight rates. The plant here was built for the purpose of taking care of the material from Austria after the war closes, the holdings there now being under the control of the Austrian Government. Those erecting the plant believe that if the war closes shortly the plant will be greatly increased in size, and the erection of additions is contemplated immediately if business continues as at present. The product for operating the plant from now until the war closes will be brought from mines in California, which will be rather expensive because of freight rates, but it is believed the condition will be relieved before long.

The plant is being erected on a site of about 30 acres purchased from the South Baltimore Harbor & Improvement Co., and lying between 7th and 9th streets and Chesapeake and Patapsco avenues, Brooklyn. The Baltimore & Ohio Railroad has run two spur lines into the grounds to handle shipments. It is situated about one-eighth of a mile from the Patapsco River. Water is furnished by the Brooklyn-Curtis Bay Light & Water Co., and electric current by the Consolidated Gas, Electric Light & Power Co. A sewer system has been laid over a large portion of the tract to insure perfect dryness in the buildings and yards. For the railroad and buildings approximately 40,000 yards of dirt was removed, and in one place there was excavating 45 feet deep.

The plant consists of a stock shed, storehouse and shops, office building, kilns, boiler-house and main building. The buildings are of concrete, brick, steel and galvanized-iron construction, with steel sash throughout, making a really daylight factory, well lighted and ventilated. They range in height from one to four stories. There will be a total of eight kilns, 32 feet in diameter and 16 feet high. Two boilers of 300 horsepower each will be operated entirely by the waste gases from the kilns, and no coal will be used to fire them. This is the first time in the history of the brick industry that the scheme has been tried, but it is believed that it will work successfully. The boilers are of the vertical type, 32 feet high, these boilers being used because the gases would rise slowly through the tubes and escape without much flue loss. Specially constructed tunnels of brick and concrete will conduct the gases from the kilns to the boilers, and four kilns will operate each boiler.

There is storage room for 5000 tons of magnesite in a building 58x195 feet. The plant is complete to the minutest detail. It has a blacksmith and machine shop, with all modern electrically-operated apparatus. A bathroom with modern sanitary equipment for the convenience of the employes has been installed.

Steel was furnished by the Gubler Engineering Co., Bethlehem, Pa.; brick by the Frederick & Maryland Brick Co., Cuban, Pa.; cement, Tidewater Portland Cement Co., Union Bridge, Md.; boilers by Wickes Boiler Co.; glass by the Pittsburgh Plate Glass Co., Baltimore; Austin Company, Cleveland, O., general contractors; Fenestra sash, by the Detroit Steel Products Co.

Concentrating Plants for Arkansas Zinc.

Yellville, Ark., May 24—[Special.]—The Sutton, Steele & Steele Mining & Milling Co. of Denver, Col., is erecting a dry process mill here for the concentration of zinc ores, and will have the mill in operation within the next 90 days. J. H. Pyle, engineer, and J. N. Sparks, millwright, are doing preliminary work. T. E. Dollahan and L. E. Lake will have charge of operation after the plant is completed.

The plant under construction at this place will be run as a custom mill. Within a radius of eight miles are dozens of small mines that will produce good, rich mill dirt that have no milling facilities now.

The North Star Mining Co., which lately took over the North Star mine, six miles north of this place, now has a 50-ton concentrating plant in course of construction. The officers of the company are Dr. Lutz Salina, Kans., president; Dr. W. E. Mowery, Salina, Kans., secretary, and Mrs. F. C. Heywood, Yellville, secretary. F. C. Heywood is superintendent and general manager. The mine has been developed with a series of tunnels and drifts, and shows a rich face of carbonate of zinc 150 feet wide and 10 or 12 feet high. A run of jack lies under this which has never been opened up.

The mill under construction is of the gravity type, and will be modern throughout, having a number of tables on which to catch the fine values. A bungalow has been constructed on the ground for the use of the manager and members of the company, and all the work is being done with an idea of permanency. Several thousand tons of rich mill dirt are on the dump, which, with the ore showing in the ground, assures them steady operation of the mill for some time.

New Operation Announced for Eastern Kentucky.

Whitesburg, Ky., May 28—[Special.]—One of the most important coal and timber land deals made in Eastern Kentucky in months was closed here during the week, when W. H. Potter, S. L. Bastin and others of the Detroit-Elk Coal Co., recently organized for developments, purchased the Potter-Wright tract of 2000 acres of Elkhorn coal lands, which is also heavily timbered, lying along the headwaters of the North fork of the Kentucky River in this (Letcher) county, at a consideration said to approximate \$100 an acre. The deal has been pending for some time, in connection with the recent organization and incorporation of the Detroit-Elk Coal Co., \$300,000 capital, with main offices in Lexington. A number of Detroit people are said to be interested.

A representative of the company states that actual development will be started at once on a large scale, and that the operation is destined to be one among the largest in this territory. The Louisville & Nashville will build a three-mile branch line out from Kona Station, survey for which was made some time ago. It is said that contracts will be awarded within the next few days, the construction to follow immediately. It is the purpose of the company to begin mining and shipping coal within 90 days.

Westinghouse Company's Best Year.

In its annual report for the fiscal year ended March 31, 1917, the Westinghouse Electric & Manufacturing Co. says that the gross earnings and the net income for the twelvemonth were greatly in excess of any previous year in its history. The completion of large orders for munitions of war contributed largely to these results, although sales billed and net income for the regular products of the company show large increases over any preceding year. With the exception of the contracts with the British Government for the manufacture of Russian military rifles, which are being carried out by the New England Westinghouse Co. under a modified contract, the company has no uncompleted munitions contracts for foreign governments on its books, all such contracts having been completed or cancelled. The modified contract for rifles mentioned provides for 1,000,000 rifles at an increased price per rifle as compared with the original contract, although the British Government has the option of increasing the number of rifles to the original number, 1,800,000, and if this

is done the original price is to be reinstated. It is further stated that there will not be any more drafts upon cash resources on account of this contract.

The income account displays the following financial results: Gross earnings sales billed, \$89,539,442.00; cost of sales, \$72,077,751.53; net manufacturing profit, \$17,461,490.56; gross income from all sources, \$18,848,237.13; net income after deductions of interest on bonds, notes and mortgages, \$18,079,888.83.

The report is signed by Guy E. Tripp, chairman.

To Take Water from Elephant Butte Dam.

El Paso, Tex., May 26—[Special.]—J. A. Smith, president of the El Paso Water Users' Association, has been advised by the United States Reclamation Service that the construction of a complete drainage system of the El Paso valley that is embraced in the Elephant Butte irrigation project will be started early in June. In order that the work may be prosecuted to the fullest possible extent two new dredging machines have been ordered. They will be operated day and night, and it is expected that they will dig not less than three miles of main ditch a month.

It is announced that F. E. Weymouth, chief of construction for the Government's reclamation projects, will be in charge of the work.

The irrigation system is to be improved by the construction of new laterals and the repairing of many old ones. It is stated by A. J. Haltom, who has been assigned as assistant irrigation manager to Ora McDermitt, in charge of the water distribution in the Mesilla and El Paso valleys, that every effort is being made to serve everyone with the amount of water necessary for the best growth of crops.

Every possible encouragement is being given farmers whose land is irrigated by the big system to enlarge their production of food and feedstuffs to the greatest possible extent.

Developing Model Farms on Mississippi Cut-Over Lands.

Jackson, Miss., May 26—[Special.]—Lumber mills in the yellow pine regions of Mississippi, where an organized effort is under way to develop the millions of acres of cut-over lands, are turning their attention to diversified farming, and many model farms have been established.

One of the best of these is at Stephenson, in Wilkinson county, a new lumber town just built for employes of the Foster Creek Land & Lumber Co.

The company has 75 acres of land under cultivation, owns a championship Aberdeen-Angus bull, a stallion from the stables of C. K. G. Billings, a number of purebred hogs of good varieties, and a herd of the finest Jerseys in South Mississippi, with a well-equipped dairy farm.

The splendid sires are used to breed up all the cattle in the county.

Ninety per cent. of the South Mississippi lumber mills are assisting materially in the growing of feedstuffs for their communities.

Incorporated With \$1,000,000 Capital.

The Kingsport Utilities Co., Kingsport, Tenn., has been incorporated with a capital of \$1,000,000 and its officers are: Sherwood E. Hall, president; Edward C. Bailly, secretary; both of White Plains, N. Y.

For Manufacturing Ferro-Alloys.

Ferro-silicon, ferro-manganese, ferro-chrome and other ferro-alloys will be manufactured by the Southern Ferro-Alloys Co. of Knoxville, Tenn. This is a new \$210,000 corporation chartered by J. Harry Price, W. F. Black, George C. Hagers and associates.

At the new North Carolina plant of the General Graphite Co., which began operations July 1, six tons of amorphous graphite, 85 per cent. carbon, will be the daily production.

Birmingham Pig in Keen Demand, With Sales at \$40 for Last Quarter Delivery.

Birmingham, Ala., May 28—[Special.]—While there is a keen demand for pig-iron, the manufacturers are not able to book much business with delivery promised this year, and there is no effort being made to get business for next year's delivery. However, sales are to be heard of for both this year and the first half of next year's delivery, small lots predominating, and consumers paying the exacting toll, high prices. Sales were made during the past week at \$38 per ton, No. 2 foundry, delivery during the first half of 1918, while a few small-lot sales are also recorded for delivery during the fourth quarter of this year at \$40 per ton. Special analysis irons were sold recently as high as \$42 per ton. Several of the companies announce being out of the market, but on the outside it is heard that some of these companies sell small lots of iron to regular customers, quotations obtaining being given. Figures are being collaborated on the iron make for the month, and by Thursday morning will be complete, indications pointing to an increase as compared to the previous month, and perhaps a record-breaking month's output will be shown.

Furnace operations are being given close attention in the Southern territory, so urgent being the need for iron. As has been stated before, the Shelby Iron Co. expects to get its No. 2 furnace at Shelby in operation about the middle of the coming month, while the Tennessee Coal, Iron & Railroad Co. will have an additional furnace on at Bessemer. Other betterments are well in hand, but results therefrom will hardly be felt for several weeks yet.

Deliveries continue to show improvement, and co-operation with the transportation plans of the National Defense Committee, under the management of a subcommittee headed by H. E. Hutchens, with office in Birmingham, has brought about some good already. Coal, coke, iron and steel manufacturers are co-operating, loading and unloading cars promptly and otherwise giving assistance in the general movement. Embargoes, though, are still felt in some directions, and no encouragement is offered for an early relief. The continued improvement in the railroad service for a few weeks will materially reduce the accumulated stock of iron in the Southern territory, conservatively placed yet at 250,000 tons. Mr. Hutchens has named prominent railroad men of the South on the subcommittee, and has divided up the work, such as coal, coke, ore, pig-iron, steel, etc. A meeting of the subcommittee was held this week and discussion held as to further relieving the situation and bringing about results in the way of moving the various products.

Representatives of some of the larger consumers who have placed orders in this district are still on hand, looking after the forwarding of the iron.

Resume of inquiries as to furnace operations in the Southern territory shows but one or two furnaces left untouched, the Battelle Iron Co. furnace, near Fort Payne, Ala., being the most prominent.

Cast-iron pipe plants are working on full time. The independent plant of the National Cast Iron Pipe Co., at Tarrant City, near Birmingham, is in receipt of a number of small specifications which aggregate well and will warrant a steady operation of the plant for many months to come.

Quotations in the scrap iron and steel market continue high, another advance of \$2 being noted in car wheels, from \$20 to \$22. Dealers report plenty of stock, with consumers complaining that prices are too high.

Quotations on pig-iron and old material in the South are as follows:

PIG-IRON.	
No. 1 foundry and soft.....	\$40.00 to \$41.00
No. 2 foundry and soft.....	36.00 to 40.00
No. 3 foundry.....	34.00 to 35.00
No. 4 foundry.....	31.00 to 32.00
Gray forge.....	30.00 to 31.00
Basic.....	35.00 to 40.00
Charcoal.....	45.00 to 50.00

OLD MATERIAL.	
Old steel axes.....	\$35.00 to \$36.00
Old steel rails.....	22.50 to 23.50
No. 1 wrought.....	25.00 to 26.00
Heavy melting steel.....	19.00 to 20.00
No. 1 machinery.....	22.00 to 23.00
Car wheels.....	22.00 to 23.00
Tramcar wheels.....	21.50 to 22.50
Store plate.....	13.50 to 14.50
Shop turnings.....	8.50 to 9.50

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

BIRMINGHAM TO JACKSONVILLE.

Direct Route to Be Built by Atlanta, Birmingham & Atlantic Railway.

Concerning the recent report that the Atlanta, Birmingham & Atlantic Railway Co. had decided to build its contemplated extension to Jacksonville, Fla., starting from Waycross, Ga., 75 miles, it is announced that a large terminal site in the center of Waycross has been purchased, and arrangements have also been made for an admirably-located terminal property at Jacksonville.

It will require from two to two and a half years to complete the extension, and it will cost something more than \$2,000,000. The existing situation as to obtaining railroad materials prevents earlier completion. Orders have been placed for 80-pound rails, which will be delivered some time next year.

Entrance to Jacksonville will afford the road the great advantage of a first-class tidewater terminal in addition to its Brunswick terminal, and it will, moreover have a direct line from Birmingham to Jacksonville, as well as one of the best routes from Atlanta to that city.

"EASTERN SHORE" ELECTRIC RAILWAY.

High-Speed, Double-Track Line Proposed from Wilmington to Easton.

Plans for the construction of an electric railway for both passenger and freight service between Wilmington, Del., and Easton, Md., about 75 miles, are being seriously and actively considered. John G. Gray, attorney and counsellor-at-law, Wilmington, advises the MANUFACTURERS RECORD that the route proposed is from Wilmington via Newark, Del., Elkton, Chestertown and Centerville, Md., to Easton. A party with the object of viewing the territory to be served recently made a trip over the route and reported most favorable impressions, not only of the towns visited, but of the country, its fertility and beauty, and the many navigable waterways indenting it. There is no north and south railroad through this region, and the proposed line would make a direct connection at Wilmington with the trunk line railroads.

The electric railway is to be of standard gauge and double-tracked; the equipment is to have high speed. A right of way, 50 feet wide, is to be acquired, and steps to obtain it will be taken after consultation and co-operation with the people in each locality, this to be done by right of way teams organized in each section, with some well-known man heading each team. Then a preliminary survey will be made. The active co-operation of the people of all the territory to be served is sought, although they will not be expected to contribute any of the money required for the construction of the railroad, but it is desired that local people shall be associated with the enterprise, so that the company will not be in the position of an interest foreign to the interests of the people which it will serve. Local people will be relied upon to remove unreasonable barriers to promptly securing right of way and also to stimulate interest.

It is pointed out that the country to be traversed by the road is a most attractive rural section, and it would be a great residential region but for the fact that it is difficult of access at present; it would also be a much greater trucking country except that inadequate shipping facilities now prevent such development.

To Get Full Use of Railroad Cars.

The Pennsylvania Railroad Co. has issued a bulletin to its patrons, saying, "In war, transportation is an essential national arm. To bring success to the national arms in the present emergency we must practice economy in the use of cars, so that more cars will be available to carry Government freight, foodstuffs

and general merchandise. Waste by any of us in any sphere, is aid and comfort to the enemy. The spirit of patriotism demands that we conserve our resources. In transportation, car space is one of the most important resources, and the saving of car space will increase national efficiency. In these times of national need the railroads are doing everything in their power to move the business, but Mr. Shipper and Mr. Consignee, we need more of your co-operation. First, by ordering only such cars as are needed for immediate loading. Second, by loading cars to full carrying or cubic capacity. Third, by prompt loading and unloading, and not taking advantage of the free time allowed under the car demurrage rules. A large part of the car shortage is due, not to insufficient equipment, but to the failure to load cars to their full carrying or cubic capacity, and to not loading and unloading promptly."

RAILROAD SECURITY OWNERS ORGANIZE

National Association Formed to Protect Their Interests in Transportation Crisis.

As a result of the large meeting of owners of railroad stocks, bonds, etc., which was held at the Hotel Emerson, Baltimore, May 23, in response to a call issued by S. Davies Warfield, president of the Continental Trust Co. of Baltimore, the National Association of Owners of Railroad Securities was formed, representing, it is stated, more than \$3,000,000,000 of railroad investments, and Mr. Warfield was elected president of the new organization. He was also authorized to appoint five representatives to appear before the Interstate Commerce Commission and present to it the necessity of action which will stabilize railroad securities and protect the credit of the railroad companies. There will be a general committee in charge of the work of the association, and five vice-presidents will be named, one each from the South, the East, the Southwest, the Middle West and the Far West. The secretary will be appointed by the president.

It was stated at the meeting that the securities of the railroads are owned as follows: By individuals, more than \$10,000,000,000; life insurance companies, \$1,550,000,000; savings banks, \$847,000,000; fire and marine insurance, casualty and surety companies, \$649,000,000; benevolent associations, colleges, schools, charitable institutions, etc., \$350,000,000; trust companies, State and National banks, \$865,000,000. In addition to this, there is a large balance, \$2,000,000,000 or more, otherwise held, mostly by foreign owners.

Furthermore, it was said, in describing the objects of the organization, that the present owners of the railroad securities, representing millions of citizens, should be considered in the settlement of questions affecting the railroads, and should not be made responsible for the acts of a few men who may in the past have unduly profited at the expense of the properties they represented. Law can prevent recurrences of such things, but the real owners of the railroads, those who hold the securities, should be heard.

In addressing the meeting, which was composed of several hundred people, representing banks, trust companies and insurance companies, as well as individual owners of railroad stocks and bonds, Mr. Warfield, who presided as chairman, said that the railroads this year, on account of increased prices for equipment, supplies, materials and labor, were obliged to pay out \$570,000,000 more than they did last year, and the increase of 15 per cent. in railroad rates which was asked of the Interstate Commerce Commission would not begin to make up the deficiency, yet there was considerable doubt whether the advance would be allowed.

Other addresses were made by H. A. Schenck, president of the Bowery Savings Bank, New York; John G. Lonsdale, president of the National Bank of Commerce, St. Louis; J. H. Ecker of the Metropolitan Life Insurance Co., New York; John E. Oldham, Boston; J. W. Stedman of the Prudential Life Insurance Co., Newark, N. J.; J. E. Woodruff, president of the Trust Company of Georgia, Atlanta, and ex-Governor Edwin C. Stokes of New Jersey.

The association adjourned subject to call by the president, who has arranged for a hearing before the Interstate Commerce Commission on the Proposed 15 per cent. increase of railroad rates, but the date for the hearing is not yet fixed.

Among those who attended were J. Rose Brown, Au-

gusta, Ga., president of the Georgia Banking Association; Hollins N. Randolph of the Federal Reserve Bank, Atlanta, Ga.; J. J. Nelligan, president Safe Deposit & Trust Co.; W. M. Hayden, president Eutaw Savings Bank; Van Lear Black, Fidelity & Deposit Co.; R. Lancaster Williams of Middendorf, Williams & Co., Baltimore; A. H. Woodward, president Woodward Iron & Steel Co., Birmingham, Ala.; Gordon Abbott, Old Colony Trust Co., John F. Oldham, Murrill, Oldham & Co., Jerome D. Greene of Lee, Higginson & Co., Boston; E. H. Pringle, Bank of Charleston; C. R. I. Brown, Citizens' Bank, Charleston, S. C.; F. W. Blair, president Union Trust Co., Detroit; George W. Watts, president Home Savings Bank, Durham, N. C.; E. W. Lane, president Atlantic National Bank, Jacksonville, Fla.; W. A. Durst, Minneapolis Loan & Trust Co.; Henry D. Pierce, Indianapolis; F. W. Egner, vice-president Fidelity Trust Co.; John W. Stedman, treasurer Prudential Insurance Co., Newark, N. J.; J. W. Smith, Harris, Forbes & Co., J. H. Ecker, Mutual Life Insurance Co.; William Alexander, Equitable Trust Co.; H. A. Schenck, president Bowery Savings Bank; William B. Joyce, president National Surety Co.; F. N. B. Close, vice-president Bankers' Trust Co.; Wm. H. Ziegler, Hanover Fire Insurance Co., and Frederick Shipman, New York Life Insurance Co., New York; A. V. Morton, vice-president Pennsylvania Company for Insurance of Lives and Granting Annuities, Philadelphia, Pa.; John R. Freeman, Mutual Life Insurance Co., Providence, R. I.; E. C. Duncan, president Merchants' National Bank, Raleigh, N. C.; H. W. Jackson, president Virginia Trust Co., Richmond, Va.; John G. Lonsdale, president National Bank of Commerce; J. Hugh Powers, president Mercantile Trust Co.; J. S. Smith, president Mississippi Valley Trust Co., St. Louis, Mo.; R. P. Sherer, vice-president Northwestern Trust Co., and F. R. Bigelow, president St. Paul Fire & Marine Insurance Co., St. Paul, Minn.; Mills B. Lane, president Citizens and Southern Bank; W. M. Lavant, president Merchants' National Bank, and Charles Ellis, president Hibernia Bank, Savannah, Ga.; A. T. Damon, president Springfield Fire & Marine Insurance Co., Springfield, Mass.; A. C. Clowis, president Exchange National Bank, Tampa, Fla.; ex-Governor Edward C. Stokes, president Mechanics' National Bank, Trenton, N. J.; A. G. Clapham, president Commercial National Bank, Washington, D. C.; Edward C. Northrop, president Dime Savings Bank, Waterbury, Conn.; C. W. Laycock, vice-president Miners' Bank, Wilkes-Barre, Pa.; Thomas E. Cooper, American Bank & Trust Co., Wilmington, N. C., and Grier Hersh, president York National Bank, York, Pa.

\$175,000 NEEDED BY THIS RAILROAD.

Gulf, Florida & Alabama Bondholders Take Steps to Put Line in Condition.

In consequence of the receivership created for the Gulf, Florida & Alabama Railway, a bondholders' protective committee has been formed in New York, and the owners of the \$4,410,000 of 5 per cent. first mortgage bonds are asked to deposit them with the Metropolitan Trust Co., 60 Wall street, as it is expected that default in the payment of the July 1 interest will occur.

The committee is composed of George C. Van Tuyl, Jr., chairman (he is president of the Metropolitan Trust Co.); Chas. G. Bancroft, president International Trust Co. of Boston; Newton P. Hutchinson of Providence, R. I.; H. C. Mandeville of Elmira, N. Y.; John T. Steele of Buffalo, N. Y.; Farrand S. Stranahan of Providence; S. S. Stratton of Chicago; Harold B. Thorne, vice-president Metropolitan Trust Co. and Joseph Walker, Jr., also of New York. J. F. McNamara is secretary and Lewis & Kelsey counsel.

It is stated that about \$175,000 is necessary to put the road and equipment in condition to handle its business.

Norfolk Southern Makes Marked Progress.

The Norfolk Southern Railroad Co. in its annual report for the year ended December 31, 1916, remarks upon the greatly improved industrial and agricultural outlook in the country along its lines. There were 27 industrial tracks built during the year, besides extensions to five tracks that were already serving industries, and it is estimated that these will yield the road \$120,000 additional revenue each year. Ten new industries were located along existing side-tracks, the estimated an-

nual revenue from them being \$37,000. The improvement of industrial development is strikingly illustrated by comparison with the preceding year, when the increase in estimated annual revenue from new industries was little more than one-third of this revenue reported for 1916.

Development along agricultural lines also continues to make marked progress. Several large tracts of land on the company's lines were sold during the year and will be developed, the largest of these being 45,000 acres along the Belhaven branch in Washington and Beaufort counties, North Carolina, which was purchased by the Norfolk Southern Farms, Inc., as previously published, and which will be employed for farming and stock raising. To develop this tract alone about 175 miles of drainage ditches will be dug. In the same vicinity 113,000 acres of swamp lands are now being drained and developed, and an additional tract of 22,000 acres on the Oriental branch is also being similarly drained and made ready for use. There is, furthermore, a 37,000-acre tract in the vicinity of Beaufort, N. C., which was mentioned in a previous report and which is likewise being prepared for settlement.

To enable it to meet the needs of its increasing business the company acquired during the year new equipment thus: Six consolidation locomotives, 98 steel gondola cars, 49 ballast cars, 2 air dump cars, 1 officers' car, a tank car of 7000 gallons, 1 motor car and 1 steam shovel.

The income statement presents the results of the year as follows: Total operating revenues \$4,939,172.28, increase as compared with 1915, \$803,825.39; total operating expenses \$3,272,199.85, increase \$250,940.58; net operating revenues \$1,666,972.43, increase \$552,884.81; operating income after taxes and uncollectible railway revenue \$1,503,242.70, increase \$525,878.33; gross corporate income \$1,882,101.45, increase \$597,194.19; net corporate income after deducting interest on funded debt, hire of equipment, rentals, etc., \$505,511.08, increase \$499,091.36; operating ratio 66.25 per cent., decrease 6.81 per cent.; operating ratio, including taxes, 66.49 per cent., decrease 6.87 per cent.

War Needs First—Then the Public.

Discontinuance of some of the passenger trains on the Southern Railway System in order to conserve the coal supply, to release men and equipment and to clear the tracks for the efficient handling of troops and supplies for the army and navy is asked of the various railroad commissions in the States traversed by the Southern's lines in a letter forwarded to the individual commissioners by E. H. Copman, vice-president in charge of operation.

"This step is peculiarly necessary in the South," Mr. Copman declared, in making the announcement public, "on account of the extraordinary demands made upon the Southern by reason of the large concentration camps to be located in the South, which will largely, if not totally, take the full carrying capacity of this company to the exclusion of other traffic."

Chesapeake & Ohio Railway's Year.

Chesapeake & Ohio Railway has issued its report for the year ended December 31, 1916, showing operating revenues, \$49,834,312.18; increase as compared with 1915, \$6,253,471.30, or 14.35 per cent.; operating expenses, \$32,608,675.85; increase, \$3,700,050.13, or 13.76 per cent.; net operating revenue, \$17,135,636.33; increase, \$2,553,421.17, or 17.51 per cent.; operating income after taxes, \$15,499,032.32; increase, \$2,362,502.12, or 17.98 per cent.; total income, \$17,140,175.30; net income, after interest, rentals, etc., \$7,606,881.77; increase, \$2,574,860.65, or 50.57 per cent. One dividend of 2 per cent. was paid, amounting to \$1,235,632.00, leaving a remainder of \$6,411,249.77.

An Interesting Railroad Publication.

The K-C-S Current Events magazine for April is a very interesting number, relating as it does to the regions tributary to the Kansas City Southern Railway. A particularly good article concerns the "Field Crops of West Louisiana, East Texas and the Gulf Coast." The illustrations show corn, oats, alfalfa, rice, sugar cane and cotton all in the field, besides potatoes, oranges

and grapefruit, all of which are raised in the regions described. "Summer Outings in the Ozark Mountain Region" is another attractive contribution. This contains a liberal number of pictures, displaying the varied beauties of the country, where the altitudes range from 1000 to 2500 feet. In addition to these, there is much reading matter, abounding with information and interest.

9000 Cars Moving Southward.

Relief for the car-shortage situation in the South, especially as to the lumber-trade conditions is promised in letters received at Memphis from the Interstate Commerce Commission and addressed to several business organizations there. It is stated in these communications that there are now 9000 cars under orders to move into Southern territory, and that their movement thither is already in progress. While by no means all of these are cars of such types that they can be used for transporting lumber, a large number of them are suitable for that purpose, and it is expected that the difficulties which the lumber manufacturers have recently experienced will soon be no more. Several mills in and near Memphis were obliged to shut down on account of the transportation troubles.

Western Maryland's Annual Report.

Conforming to the orders of the Interstate Commerce Commission the Western Maryland Railway Co. has issued its annual report for the year ended December 31, 1916. It shows railway operating revenues, \$11,967,981.95; increase as compared with 1915, \$2,079,381.82; railway operating expenses, \$7,516,221.78; increase, \$862,864.21; net operating revenue, \$4,451,760.17; increase, \$1,216,517.61; operating income, after taxes and uncollectible railway revenue, \$4,045,674.48; increase, \$1,132,290.51; total operating income, \$4,046,530; increase, \$1,134,736.22; gross income, \$4,272,462.27; increase, \$1,069,169.12; net income, \$1,319,659.92; increase, \$1,426,567.20. Operating ratio, 62.89 per cent.; decrease, 4.48 per cent.

Contracts Let at Selma (N. C.) Yard.

The Southern Railway Co., which is building a freight yard and engine terminal at Selma, N. C., as previously published, has awarded the contract for the grading and the track work of the entire yard to H. C. McCrary of Knoxville, Tenn. There will be six tracks, with a total capacity of 600 cars, including a 300,000 pounds capacity track scale.

The engine terminal includes a 300-ton steel coaling station, the contract for which has been let to Fairbanks Morse & Co. of Chicago; two Robertson cinder conveyors, a 100,000-gallon water tank, with deep well and pumps, small repair yard, with necessary shop buildings and a compressed-air plant.

New Equipment.

Pennsylvania Railroad is building for its western lines 30 locomotives at the Altoona shops. The company is also reported in the market for 2000 freight cars.

Illinois Central Railroad has ordered from the Pullman Company, Chicago, 10 chair cars, 25 passenger cars, 8 combination passenger and baggage cars and 10 baggage cars, all of these being of 70 feet length; 10 baggage cars for storing mail and 5 baggage and mail cars, all these being of 60 feet length.

Chicago & Alton Railroad contemplates purchasing 10 Santa Fe type locomotives.

Chief Engineer Appointed.

F. Ringer has been appointed chief engineer of the Missouri, Kansas & Texas Railway, with headquarters at Dallas, Tex., succeeding L. F. Lomblad, resigned. Mr. Ringer, who is a graduate of the engineering school of the Kansas State University, entered the service of this railway in June, 1894, and has been continuously in its engineering department since then, advancing from one post to another, his last position being engineer of maintenance of way.

Good Roads and Streets

SOUTHERN HIGHWAY ACTIVITIES.

Details in regard to road and street undertakings and bond issues, briefly mentioned below, are given under the proper headings in our "Construction Department" and "New Securities," published elsewhere in this issue.

Bonds Voted.

Cameron, La.—Cameron parish voted \$13,000 bonds to construct road.

Orlando, Fla.—City voted \$70,000 bonds to improve streets.

Orlando, Fla.—Orange county voted \$40,000 bonds to construct 40 miles of clay roads.

Gorman, Tex.—City voted \$10,000 bonds to pave streets.

Martinsburg, W. Va.—City voted \$195,000 bonds for paving and general improvements.

Wichita Falls, Tex.—Wichita county voted \$750,000 bonds to construct roads.

Bonds to Be Voted.

Houston, Tex.—Harris county votes June 27 on \$1,100,000 bonds to construct roads.

Contracts Awarded.

Asheville, N. C.—Buncombe county awarded contract for 9½ miles of road construction; \$175,000 involved.

Beaumont, Tex.—O. C. Harrenkin has \$5514 contract to repair approaches to United States postoffice.

Birmingham, Ala.—City awarded \$14,000 contract for sheet asphalt paving.

Clarksdale, Miss.—City awarded contract for 22,000 square yards asphaltic concrete pavement; \$75,000 available.

Hickory, N. C.—City awarded contract for 40,000 square yards sheet asphalt paving.

Jonesboro, Ark.—City awarded \$300,000 contract for 15 miles of paving.

Orlando, Fla.—City awarded \$63,871.42 contracts for paving streets and improving roads.

Richmond, Va.—City awarded \$6847.60 contract for improving roadways.

Richmond, Va.—City awarded \$9894.40 contracts for street improvements.

Wartburg, Tenn.—Morgan county awarded contract to construct roads; expenditure \$200,000.

Contracts to Be Awarded.

Aberdeen, Miss.—Monroe county will improve 40 miles of sand-clay roads; \$50,000 available.

Atlanta, Ga.—City invites bids until June 16 for 100,000 square yards paving and 50,000 yards gutters.

Baltimore, Md.—State asks bids until June 12 on 17.03 miles of road construction.

Christiansburg, Va.—Montgomery county will grade and drain eight miles of road.

Crosbyton, Tex.—Crosby county will construct roads, etc.; cost \$50,000.

Crowley, La.—Acadia parish will construct 70 miles of metal-surface roads.

Des Arc, Ark.—Prairie county will construct nine miles of macadam road.

Hattiesburg, Miss.—Forrest county will improve about 45.8 miles of road.

Huntsville, Tex.—Walker county will expend \$187,000 to continue road improvements.

La Grange, Tex.—Fayette county will construct reinforced concrete approaches 500 feet long and 18 feet wide on Colorado River bridge.

Kingwood, W. Va.—Preston county will construct 17.1 miles of concrete roads.

Martinsburg, W. Va.—Martinsburg & Potomac Turnpike Co. will repair 13 miles of water-bound macadam road with oiled surface; cost about \$10,000.

Marksville, La.—Avoyelles parish will construct about 30 miles of gravel roads; \$120,000 available.

Starkville, Miss.—Oktibbeha county will construct roads; \$100,000 available.

Tuxedo, N. C.—Blue Ridge Power Co. will build 10-mile drive around reservoir site.

Roads Bonds for \$750,000.

Wichita county, Tex., will issue \$750,000 bonds for road construction, the vote on this issue having resulted affirmatively. The Wichita county commissioners, county-seat at Wichita Falls, will give prompt attention to issuance of the bonds and arrangements for construction.

Concrete Paving Costing \$175,000.

The Buncombe county commissioners, Asheville, N. C., have awarded contract for the Hendersonville road construction, for which bids were recently invited. This contract provides for 9½ miles of concrete construction to cost about \$175,000, and the contractor is the Clyde-Reed Construction Co. of Asheville.

Paving to Cost \$300,000.

Contract has been awarded for \$300,000 worth of street paving at Jonesboro, Ark., for which proposals were recently invited. This improvement calls for 15 miles of paving, and the Kaw Paving Co. of Topeka, Kans., is the contractor.

Two Alabama Graphite Developments.

Alabama graphite properties will be developed by the Atlas Graphite Corporation of Birmingham, which has been chartered with \$125,000 capital and the following officers: L. H. Weller, president; C. E. Massey, vice-president; John M. Hughes, secretary-treasurer. Another development will be undertaken by the Republic Graphite Co. of Jasper, Ala., which has been incorporated with \$100,000 capital by John H. Bankhead, Jr., H. E. McCormack, W. A. Clark and C. McCormack.

New West Virginia Coal Corporation.

Extensive coal properties in Clay county, West Virginia, will be developed by the Associated Colliery Co. of Clarksburg, which has been incorporated with a capitalization of \$500,000. The incorporators named are B. B. Jarvis and C. B. Guthrie of Clarksburg, H. T. Wilson of Morgantown, W. Va.; M. R. Toland of Broad Oaks, W. Va., and A. J. McDaniels of Pittsburgh, Pa.

Petroleum Supply.

In commenting on its summary of crude petroleum movement in April, 1917, compared with March, 1917, and April, 1916, the Department of the Interior says that the status of the petroleum industry in the United States (exclusive of California) indicates, as between April and March, 1917, a slight improvement in the general outlook for a supply of crude petroleum with which to meet the steadily increasing demand at home and abroad. As between April, 1917, and April, 1916, it offers no basis for optimism. The slight increase in stocks of petroleum in the Oklahoma-Kansas field, though in a broad sense reassuring, fails to indicate the diminishing reserves of crude oil held by many of the small refiners in this field, or to reflect the general decrease of drilling operations throughout the country necessitated by a shortage of casing and other drilling supplies.

The amount of crude petroleum moved in April, 1917, from field sources was 17,758,885 barrels; the amount of crude petroleum delivered to refiners or consumers for April, 1917, was 15,179,681 barrels, and the stocks of crude petroleum at the end of April, 1917, amounted to 125,066,052 barrels.

Proposed Big Fiber Box Factory.

Fiber boxes will be manufactured at Warwood, W. Va., by the United States Fiber Box Co. of Indianapolis. This corporation has decided upon an investment of about \$300,000 to construct buildings and install machinery for its Warwood plant, but no further details have been stated.

TEXTILES

For Big Electric Drive Installations.

Extensive installations for the electric power drive have been decided upon by the Pacolet Manufacturing Co. for its Pacolet Mills at South Carolina and its Gainesville Cotton Mills at Gainesville, Ga. About \$200,000 will be expended by the company and the Georgia Railway & Power Co. of Atlanta, which will furnish the 6000 electrical horse-power required. Several hundred electric motors, ranging from 5 to 150 horse-power, will be required, and engineers are now preparing specifications for these installations. The electricity will be transmitted from the Dunlap plant, on the Chattahoochee River, of the Georgia Railway & Power Co., which will construct a 38,000-volt transmission system. The Pacolet plant has 62,336 ring spindles and 1982 looms, with 650 operatives employed, while the Gainesville plant has 42,008 ring spindles, with 1220 looms, employing 500 operatives.

Roanoke Mills Co.'s Additions.

Contract has been awarded to T. C. Thompson Bros. of Charlotte for constructing the No. 2 mill and the accompanying village for the Roanoke Mills Co.'s recently detailed \$630,000 additions. The new mill will be 542 feet long by 158 feet wide, of concrete construction, with fenestra sash, costing \$100,000. The mill village plans call for 70 cottages. The company was lately mentioned as having ordered all the machinery, costing \$530,000, for this addition, to have a daily capacity of 10,000 pounds of cotton yarn. This equipment will include 23,184 spindles, with a 900-horse-power electric drive, and later it is the intention to install 700 wide looms. Electricity will be obtained from the Roanoke Power Co.'s transmission system. The Roanoke mill is at Roanoke Rapids, N. C.

600,000 Pairs of Woolen Hose.

An order for 600,000 pairs of lightweight natural woolen hosiery has been obtained by the Union Manufacturing Co. of Frederick, Md. This is one of the many large contracts which the War Department is awarding in connection with activities for the new army, and all hose is to be delivered by December 31. Deliveries are to begin on June 1, and are to be continued in equal monthly deliveries until the end of the year. No new machinery will be necessary, as the Union plants are fully equipped to care for this contract.

Textile Notes.

J. H. Strigner of Newark, N. J., contemplates establishing a knit-goods mill at Gaffney, S. C.

A 200x175-foot addition will be built and equipped with looms by the Carolina Cotton & Woolen Mills Co., Spray, N. C.

The Cottonseed Products Co., Roff, Okla., will build a bleachery, but has not determined details. Arthur D. Little, Inc., Boston, is the engineer.

The Eagle Cordage Co., Covington, Ky., contemplates equipping its mill with the electric drive, requiring several small motors.

W. B. Murr and B. M. Spratt, Jr., of Maiden, N. C., and J. R. Hagan of Patterson, N. C., have incorporated the Yadkin Woolen Mills, with a capital of \$50,000.

Contract has been awarded to the T. O. Brown Company of Augusta for building the recently-announced addition of the Southern Press Cloth Manufacturing Co., Augusta, Ga. This new building will be two stories high and 300 feet long by 50 feet wide, costing \$26,000. It will be of mill construction, with either tin or asbestos roof, and floors of four-inch pine and one-inch maple. Goodrich & Clarke of Augusta are the architects. An equipment of machinery for spinning and weaving press cloth will be installed.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

BRIDGES, CULVERTS, VIADUCTS

Fla., Jacksonville.—Duval County Commrs. ordered election for July 9 to vote on bonds to construct bridge over St. Johns River, from Jacksonville to South Jacksonville.

Ga., Oglethorpe.—Macon County Commrs. will construct small concrete bridges; cost \$1000 to \$6000 each; soon ask bids on first bridge of series; Arthur Pew, Consult. Engineer, 500 Forsyth Bldg., Atlanta, Ga.

Ky., Barbourville.—Knox County Fiscal Court ask bids until June 11 for 43-ft. and 45-ft. steel bridges. (See Machinery Wanted—Bridges.)

La., Kinder.—Allen Parish Supervisors, Geo. M. King, Jr., Secy., ask bids for June 28 on bridges in connection with road construction, Dist. No. 2, and St. Elmo Dist. (See Road and Street Work.)

Miss., Hattiesburg.—Forest County, J. K. Denham, Commr., asks bids until June 5 to construct bridges and culverts in connection with 45.8 mi. road improvements; F. T. Myers, Engr. See Road and Street Work. (See Machinery Wanted—Road Construction.)

Mo., Kansas City.—City let contract Union Bridge & Construction Co., Kansas City, to construct bridge across Blue River at 50th St.; concrete; length 150 ft.; cost \$40,000.

Mo., Kansas City.—Union Pacific R. R. (R. L. Huntley, Ch. Engr., Omaha, Neb.), Missouri Pacific Ry. (E. A. Hadley, Ch. Engr., St. Louis) and Kansas City Rys. Co. will construct viaduct; length 1637 ft., 1162 ft. on James St. on Kansas side to 12th St. in Missouri, and 475 ft. on 12th St. at right angles to James St. section; reinforced concrete; extend over Union Pacific tracks in Missouri and over Missouri Pacific tracks in Kansas; cost \$185,000, of which city will pay \$114,700. (Previously noted.)

Okla., Arapahoe.—Custer County Commrs. have plans for \$5000 concrete bridge over Washita River.

Tex., Fort Worth.—City will construct old Seventh Street bridge at point on Clear Fork; County Commrs. receive bids until June 4; W. E. Yancy, County Auditor. (See Machinery Wanted—Bridge Construction.)

Tex., Orange.—City let contract Midland Bridge Co. of Kansas City to construct trestle approach to wharves. (See Miscellaneous Construction.)

Tex., Wichita Falls.—Wichita County Commissioners let contracts to construct 3 bridges across Little Wichita River: Missouri Valley Bridge & Iron Co., Leavenworth, Kan., at \$44,890, bridge at Burnett St.; Austin Bros., Dallas, Tex., at \$33,436, 2 bridges at Iowa Park and Electra; Burnett St. bridge of reinforced concrete; 20-ft. roadway for concentrated load of 20 tons; 2 sidewalks, each 4 ft. wide; roadway of reinforced concrete with bitulithic wearing surface; sidewalks of concrete; total length 450 ft.; Iowa Park and Electra bridges, steel truss of 2 spans, each 120 ft.; length of each bridge with approaches 300 ft.; roadway 16 ft. wide of lumber, designed to carry 15-ton load; M. M. Cooke, Engr., Kemp & Kell Bldg., Wichita Falls. (Lately noted inviting bids.)

CANNING AND PACKING PLANTS

Fla., Crystal Springs.—Crystal Springs Canning Club contemplates installing steam cannery.

Fla., Fort Pierce.—Corcoran-Rockledge Packing Co. will erect packing plant for vegetables and citrus fruits; frame construction.

Ga., Macon.—R. L. Walker, Farm Product Exchange, is interested in machinery for canning and otherwise handling sweet potatoes. (See Machinery Wanted—Canning Machinery, etc.)

Mo., Independence.—Jackson County Commissioners considering establishment of cannery on County Farm; L. R. Tolliver, Farm Supt.

N. C., Salisbury.—D. G. Tatum, 418 S. Ellis St., is interested in proposed installation of fruit evaporating equipment. (See Machinery Wanted—Evaporating Machinery.)

N. C., Winston-Salem.—W. T. Brown, Local Mgr. for Virginia-Carolina Chemical Co., contemplates building cannery.

S. C., Newberry.—Newberry Cannery, capital \$3000, inceptd. by John W. Kibler and Jas. W. Johnson.

S. C., Rock Hill.—Rock Hill Community Cannery (J. L. Carbery and others) will establish cannery; daily capacity 2000 to 4000 cans; has building.

S. C., York.—A. D. Dorsett is considering establishment of cannery.

CLAYWORKING PLANTS

Ala., Ragland.—Brick and Tile.—Ragland Clay Works inceptd. by Watt T. Brown and others; manufacture paving brick and tile.

Fla., St. Petersburg.—Tile.—Pinellas Machine Co. acquired Crescent Co.; increase capacity of plant manufacturing ornamental tile for exterior and interior use; T. E. Orr, Mgr.

W. Va., Huntington.—Bathroom Fixtures.—Sanitary Mfg. Co. increased capital from \$300,000 to \$500,000; completing addition to plant.

COAL MINES AND COKE OVENS

Ala., Birmingham.—United States Fuel Co., capital \$10,000, inceptd.; W. H. Weller, Jr., Pres.; L. H. Weller, V.-P.; Wm. King Merritt, Secy.

Ark., Fort Smith.—E. D. Bedwell Coal Co. increased capital from \$8000 to \$25,000.

Ark., Hackett.—Excelsior Smokeless Coal Co., capital \$12,000, inceptd.; Chas. C. Morgan, Pres.; W. Hull, V.-P.; W. P. Forbes, Secy.-Treas.

Ark., Hartford.—Martin-Rains Coal Co. organized; J. D. Martin, Pres. and Mgr.; W. H. Rains, V.-P.; E. B. Willbourn, Secy.; develop 15 acres; daily capacity 150 tons; machinery purchased, cost \$2500. (Lately noted inceptd., capital \$2500.)

Ky., Ashland.—Dwale Coal Co., capital \$5000, inceptd. by J. P. Clarke, T. B. Powell and S. S. Willis.

Ky., Harlan.—Portland Coal Co., capital \$3000, inceptd. by P. A. Paddock, J. E. Sampson and William Sampson.

Ky., Layman.—Howard & Hensley Coal Co., capital \$1500, inceptd. by W. F. Howard, J. H. Howard and Senora Howard.

Ky., Louisville.—Virginia Coal & Mining Co., capital \$20,000, inceptd. by Claude N. Boone, Wm. Burger, J. P. Davis and others.

Ky., Louisville.—Virginia Coal Co. changed name to Virginia Coal & Mining Co. and increased capital from \$1000 to \$50,000.

Ky., Mater.—Detroit-Elk Coal Co., Lexington, Ky., will develop 150 acres; daily output 2000 tons; open mining machinery bids in about 30 to 60 days; by-produce coal, no ovens; W. H. Potter, Pres.; C. C. Winter, Detroit, Mich., V.-P.; H. C. Faulkner, Hazard, Ky., Secy.; T. D. Cassidy, Treas.; S. L. Bastin, Mgr. (Lately noted increasing capital from \$30,000 to \$300,000, and as acquiring 1450 acres coal lands in Letcher County.)

Ky., Middlesboro.—Will Harr Coal Co., capital \$10,000, inceptd. by H. W. Harr, W. R. Buchanan and I. H. Buchanan.

Ky., Middlesboro.—Coal Creek Coal Co., capital \$30,000, inceptd. by W. A. Bowman, J. E. Evans and Bettie Evans.

Ky., Pineville.—D. B. Logan and Joe L. Manning purchased 1000 acres coal land between Pineville and Four Mile; will develop.

Ky., Pineville.—Harlan Bell Coal Co. organized by N. R. Patterson, A. M. Gregory and E. N. Ingram for development of lands on main line Louisville & Nashville R. R.

Ky., Pineville.—Harlan-Knox Coal & Lumber Co., capital \$20,000, inceptd. by A. Lunsford, A. Caruthers and Walter Shuff.

Ky., Pineville.—J. B. Straight Creek Mining Co., capital \$100,000, inceptd. by L. H. Stone, J. T. Bradley and N. R. Patterson.

Ky., Pineville.—Northwest Coal Co., capital \$100,000, inceptd. by Robert E. Woods, W. J. Cunningham and W. R. Wood.

Ky., Pineville.—Flat Lick Coal Co., capital \$15,000, inceptd. by F. A. Wood, J. W. Taylor and M. P. Miller.

Ky., Praise.—Kentucky-Elkhorn Coal Corporation organized; F. R. Scott, Pres.-Treas.; H. A. Womack, V.-P. and Mgr.; H. W. Richardson, Secy.; develop 110 acres; present capacity 250 tons. In April, noted inceptd., capital \$9000. (See Machinery Wanted—Mining Machinery.)

Ky., Rockhold.—Faber Coal Co., inceptd. by F. S. Smith, W. M. Jones and W. M. Harp.

Ky., Wallins Creek.—Carr Coal Co. organized to develop coal, Harlan County.

Ky., Yerkes.—Annjean Coal Co., capital \$25,000, organized by J. B. Lyttle, George Lyttle and others; to develop Johnson coal tract, estimated daily capacity 500 tons; H. B. Jones, Mgr.

Md., Elkton.—Sedar Coal Co. chartered with \$30,000 capital by Clement M. Egner and others.

Mo., Macon.—Acme Block Coal Co., capital \$10,000, inceptd. by J. E. Bennight, Waldo Edwards and Edward S. Jones.

Mo., Rich Hill.—Hickory Hill Coal Co., capital \$6000, inceptd. by F. W. Griffin, P. L. Shelton and L. R. Frankenfeld.

Mo., Sedalia.—Bar-Neal Oklahoma Oil, Gas, Mining & Mfg. Co., capital \$2000, inceptd. by J. W. Neal, Ralph Manker and I. E. Elliott.

Tenn., Mayland.—Tip Top Coal, Land & Lumber Co. organized; P. D. Houston, Pres.; J. C. Bradford, Secy.; W. W. McNelly, Treas.; develop 6000 acres; plans not determined. (Under Tenn., Monterey, lately noted inceptd., capital \$50,000.)

Va., Bristol.—Bristol Coal Corp., capital \$10,000, chartered; J. S. Sherfey, Pres.; J. M. Berry, Secy.-Treas.

Va., Bristol.—Splash Dam Coal Corp., capital \$50,000, chartered; M. T. McArthur, Pres.; T. E. Goodin, Secy.; both of Johnson City, Tenn.

Va., Doran.—Fuel & By-Products Coal Corp., capital \$50,000, chartered; S. B. Fulton, Pres., Huntington, W. Va.; W. B. Crawford, Secy.-Treas., Bluefield, W. Va.

Va., Grundy.—Chesapeake Coal Co., capital \$10,000, inceptd.; S. R. Hurley, Pres.; J. W. Lambert, Secy.

Va., Norton.—Clear Creek Coal Co., capital \$25,000, inceptd.; J. S. Cheyney, Pres., Glomorgan, Va.; G. C. Scarborough, Secy.-Treas.; develop 300 acres; capacity not estimated; now prospecting; Scarborough & Dobson, Const. Engrs., Norton.

Va., St. Paul.—McClure Coal Corp., capital \$25,000, chartered; L. C. McNeer, Pres.; T. T. McNeer, Secy.; both of Dante, Va.

Va., Tazewell.—Frazier Pocahontas Coal Corp., capital \$15,000, chartered; J. T. Frazier, Jr., Pres., Chilhowie, Va.; J. Walter Graybeal, Secy., Pocahontas, Va.

W. Va., Carlos.—Pan Coal Co., capital \$25,000, inceptd. by J. S. Wallace of Jaeger, W. Va., G. J. Cooper and R. Quisenberry of Welch, W. Va., and others.

W. Va., Charleston.—General Gas & Electric Co., W. S. Barstow, Pres., 50 Pine St., New York, purchased Eastern Utilities Co.; annual output, 100,000 tons coal; will increase to 250,000 tons.

W. Va., Charleston.—Standard Island Creek Coal Co. will operate at Loma, W. Va., and Cora, W. Va. Lately noted inceptd., capital \$60,000. (See W. Va., Cora.)

W. Va., Clarksburg.—Stewart Coal Co., capital \$50,000, inceptd. by W. I. Booth, Harry W. Sheets, Mary E. Booth and others.

W. Va., Clarksburg.—Associated Colliery Co. chartered with \$500,000 capital by B. B. Jarvis and C. B. Guthrie of Clarksburg, A. J. McDaniels of Pittsburgh, Pa.; M. R. Toland of Broad Oaks, W. Va., and H. T. Wilson of Morgantown, W. Va.

W. Va., Cora.—Standard Island Creek Coal Co., Logan, W. Va., inceptd.; capital \$600,000; operate plants at Loma and Cora, W. Va.; develop 1300 acres; daily output 1500 tons; F. E. Taplin, Pres.; E. W. Astel, V.-P.; C. F. Taplin, Secy.-Treas.; all of Cleveland, Ohio; G. K. Gentry, Mgr.

W. Va., Fairmont.—Fairmont Coal Co., capital \$100,000, inceptd. by G. C. Powell, Michael Powell, Jesse C. Wright and others.

W. Va., Fairmont.—Rachel Gas Coal Co. capital \$99,999, inceptd. by D. C. Eaton, J. E. Stewart, Victor T. Reed, Wm. L. Stewart and A. L. Pearson, all of Pittsburgh, Pa.

W. Va., Grafton.—East Grafton Coal Mining Co., capital \$200,000, inceptd. by Geo. E. Mier, Robt. Burnser, Chas. W. Scrimshaw and others, all of Cleveland, O.

W. Va., Hershaw.—Lens Creek Coal Co., Charleston, W. Va., organized; Otto J. Cox, Pres.; Joe Wehrte, Jr., V.-P. and Mgr.; Roy Cox, Secy.; E. M. Cox, Treas.; develop 302 acres. (Lately noted inceptd.)

W. Va., Huntington.—Scioto Mining Co., 629 First National Bank Bldg., inceptd., capital \$50,000; Jefferson Champlain, Pres.; G. W. Bailey, V.-P.; Morris Bailey, Secy.; R. J. Wilfong, Supt.; develop 212 acres; estimated daily capacity 100 tons; receiving bids on mining machinery.

W. Va., Interstate.—Ross F. Stout, County Treas., Clarksburg, and others purchased coal land and will develop.

W. Va., Javins.—Dartmont Coal Co., Charleston, W. Va., organized; E. B. Snider, Pres.; F. D. Barron, V.-P. and Mgr.; Mason Crickard, Secy.; develop 500 acres; esti-

mated capacity 200 tons; install power-house and mining machinery. Lately noted inceptd., capital \$50,000.

W. Va., Logan.—Preston-Eagle Coal Co. organized; Alex. Rose, Pres.; R. M. Wilson, V.P. and Mgr.; R. L. Spear, Secy.-Treas.; daily capacity about 100 tons. (Lately noted inceptd., capital \$10,000.)

W. Va., Matewan.—P. M. C. Coal Co., capital \$50,000, inceptd. by H. M. Coleman of Matewan, B. Randolph Bias of Williamson, W. Va., P. E. Countryman of Ashland, Ohio, and others.

W. Va., Meadow Creek.—Sewell Valley Coal Co., Besoco, W. Va., organized; E. C. Minter, Pres. and Mgr.; A. K. Minter, V.P.; J. B. Cufon, Secy.-Treas.; develop 2300 acres; receiving bids on mining machinery. Lately noted inceptd., capital \$200,000. (See Machinery Wanted—Mining Machinery.)

W. Va., Monongalia County.—Federal-Connellsville Coal & Coke Co., capital \$50,000, inceptd. by T. B. Donnelly, H. C. Hays, H. M. Kephart and others, all of Connellsville, Pa.

W. Va., Morgantown.—Bruceton Coal Co., capital \$10,000, inceptd. by John L. Barchus and Ernest Livingood of East Lick, Pa.; Bruce Lichty of Myersdale, Pa., and others.

W. Va., Morgantown.—Leonard Coal Co., capital \$10,000, inceptd. by E. D. Trumlin, B. M. Chaplin, Glenn Hunter and others.

W. Va., Philippi.—Rock Island Coal & Coke Co., capital \$25,000, inceptd. by A. S. Dayton and W. T. Ice, Jr., of Philippi, Lee J. Sandridge of Meriden, W. Va., and others.

W. Va., Pratt.—Coleman Coal Co., capital \$500, inceptd. by R. Coleman, B. N. Coleman, T. S. Clerk and others.

W. Va., Shinnston.—Bogges-Wilson Coal Co., capital \$500, inceptd. by Lee Bogges, F. C. Wilson, L. A. Lovejoy and others.

W. Va., Williamson.—W. Coal Co., capital \$500, inceptd. by G. R. C. Wiles, A. C. Pinson, E. H. Lambert and others.

CONCRETE AND CEMENT PLANTS

N. C., Wilmington.—Cement.—Standard Cement Contracting Co. increased capital from \$15,000 to \$30,000.

Tex., Haskell.—Silos.—Interlocking Cement State Silo Co., capital \$10,000, inceptd. by D. B. English and R. R. English of Haskell, and F. M. Shanklin of Fort Worth.

COTTON COMPRESSES AND GINS

Ark., Camden.—Camden Electric Gin Co. (T. J. Watts, G. S. Rumph and Geo. R. Gordon) has plans and specifications for cotton gin; daily capacity 50 bales; electric power furnished by Arkansas Light & Power Co.; purchased huller system gin with automatic tamper.

Ark., Earle.—Earle Compress Co., F. W. Reisinger (Memphis, Tenn. address, 1625 Peabody Ave.), Pres., will erect 192x408-ft. mill-construction building; erection by the company; plans by N. A. Kramer, V.P. and Mgr.; has purchased machinery, cost \$35,000. (Lately noted inceptd., capital \$50,000, and to build cotton compress.)

Ark., Fort Smith.—Lesser-Goldman Cotton Co., 112 S. Main St., St. Louis, Mo., advises Manufacturers Record: Probably will erect plant; plans indefinite. (Previously reported to build cotton compress.)

Ark., Jonesboro.—Jonesboro Compress Co., capital \$50,000, will be inceptd.; J. E. Parr, Pres.; E. C. Stuck, V.P.; Alex. Berger, Treas.; E. J. Mason, Secy.

Tex., Sherman.—Ferguson Seed Farms, A. M. Ferguson, Pres., 529 E. Jones St., acquired Scott & McKown gin plant; will overhaul and install additional machinery. See Miscellaneous Enterprises. (See Machinery Wanted—Cotton-gin Machinery.)

Tex., Willis Point.—Willis Point Gin Co., capital \$5000, inceptd. by C. N. Thatcher, W. R. Howell and J. E. Howell.

COTTONSEED-OIL MILLS

S. C., McCormick.—Dorn-Finley Co., capital \$10,000, inceptd. by M. G. Dorn, J. J. Dorn and Preston Finley.

Tex., Texas City.—Texas City Compress & Transportation Co., Waco, will install high-density compress; cost \$50,000; has let contract.

DRAINAGE SYSTEMS

Fla., West Palm Beach.—Southern States Land & Timber Co. let contract South Florida Drainage & Construction Co., Arcadia, Fla., to construct drainage system; reclaim 10,000 acres, to be divided into 40 and 80-acre farms, each with lateral canal; also proposes system of roads along lateral canals.

La., Opelousas.—St. Landry Parish, Plaquemine Drainage Dist., will construct drainage system; 42.2 mi. ditch, bottom ranging from 6 to 28 ft.; 518,000 cu. yds. excavation; bids until June 18; R. M. Hollier and W. B. Robert, Engrs., Opelousas. (See Machinery Wanted—Drainage System.)

ELECTRIC PLANTS

Ky., Paducah.—City Com. is considering \$185,000 bond issue to improve electric-light plant.

Miss., Natchez.—Jefferson Military College let contract to Brown & Henderson of Natchez to construct electric-light plant.

N. C., Raleigh.—Palmetto Power & Light Co. is making survey for transmission line from Laurinburg, N. C., to point on Wateree River, to receive power from Wateree Power Co. Lately noted inceptd., capital \$300,000. (See Hydro-Electric Plants.)

Okla., Billings.—City invites bids until August 1 to construct electric-light plant, water-works and sewer system; cost \$50,000; Mackintosh-Walton Engineering Co., Engr., 1023 State National Bank Bldg., Oklahoma City; L. Panten, Pres. Board of Public Works. (Lately noted to have voted \$10,000 bonds to improve electric-light plant.)

S. C., Spartanburg.—City votes June 12 on purchase or construction of electric-light plant. J. F. Floyd, Mayor.

Tenn., Kingsport.—Kingsport Utilities Co., capital \$1,000,000, inceptd.; Sherwood E. Hall, Pres.; Edward C. Bailly, Secy.; both of White Plains, N. Y.

FERTILIZER FACTORIES

N. C., Newbern.—Atlantic Humus Co., capital \$25,000, inceptd. by C. M. Kehoe, T. H. Bennett and H. K. Land.

Va., Richmond.—Nitro-Phospho Corp., capital \$500,000, chartered; M. C. Patterson, Pres.; T. S. Winston, V.P.; John Landstreet, Secy.-Treas.

FLOUR, FEED AND MEAL MILLS

Ala., Albany.—A. Z. Bailey & Co. will install velvet bean mill; purchased machinery.

Ark., Knobel.—B. F. Scott will erect flour mill.

Ala., Robertsdale.—Joe Baldwin will enlarge feed mill.

Ark., Stuttgart.—Frank Roark, J. E. Mitchell, J. L. Layne and others are interested in erection of flour mill.

Ga., Columbus.—C. F. Mizell, Enterprise, Ala., is considering establishment of feed-grinding mill.

Mo., North Kansas City.—Triangle Milling Co. will erect mill to manufacture alfalfa meal and other alfalfa products; first unit to have elevator capacity of 35 cars; initial building, 88x315 ft., being erected by Wimmer Construction Co. of St. Louis; initial expenditure \$125,000.

N. C., Morgantown.—Shuping & Potet (J. A. Shuping and C. A. Potet) will install roller-mill and buhr cornmill; daily capacity 30 bbls. flour and 100 bu. meal; has purchased machinery, excepting electric motor. (See Machinery Wanted—Motor (Electric).)

Okla., Stillwater.—Stillwater Milling Co., capital \$30,000, inceptd. by Jos. E. Audsley, Jos. Dvorak and Frank H. Kolm.

Tex., Vernon.—Sewell Grain & Fuel Co. will alter and remodel buildings for flour mill; has let contract; install machinery with daily capacity 50 bbls. flour and 2000 lbs. corn meal; purchased flour-mill machinery. Lately noted. (See Machinery Wanted—Corn-Mill Machinery.)

Va., Shenandoah.—Shenandoah Milling Co., capital \$35,000, inceptd.; M. E. Roudabush, Pres., Stanley, Va.; A. A. Roudabush, Secy.-Treas., Shenandoah.

FOUNDRY AND MACHINE PLANTS

Ark., Camden.—Foundry.—Camden Foundry Co. will rebuild burned portion of plant; brick and iron. (Plant lately noted burned, excepting machine and pattern shops.)

Ga., Atlanta.—Machine Shop.—American Machine & Mfg. Co. will erect foundry and machine shop; concrete and tile; 120x130 ft.; cost \$35,000; H. J. Carr & Co., Contrs., Atlanta.

Ky., Louisville.—Heating Plants, etc.—Hart Mfg. Co., capital \$60,000, inceptd. by T. W. Vinson, H. K. Cole, R. E. Gordon and others.

Md., Baltimore.—Marine Engines.—Shelfield Car Co., Three Rivers, Mich., advises Manufacturers Record: Establish branch manufacturing plant; this company subsidiary of Fairbanks, Morse & Co., Chi-

cago; in Baltimore factory planning to build 2, 3 and 4-cylinder 30 to 60 H. P. Fairbanks-Morse C-O marine engines, which are semi-Diesel type; take over Charles White Gas Engine Co. by June 15; make some changes and rearrange machinery. (Fairbanks, Morse & Co., Chicago, lately noted to establish branch plant, purchased Charles White Gas Engine Co., etc.)

Mo., Centropolis.—Station Kansas City—Steel Products.—Butler Mfg. Co. will erect addition 125x140 ft.

Mo., Joplin.—Welding, etc.—Joplin Welding Co., capital \$10,000, inceptd. by Frank Parks, Chas. Wyatt and W. N. Andrews.

Mo., St. Louis.—Machinery.—Inland Machine Works will erect plant; 2 stories; main structure 70x430 ft. and 4 wings each 70x400 ft.

N. C., Elkin.—Plows.—Elkin Subsoil Plow Co. inceptd. by J. W. Mathis, J. M. Simmons, E. F. McNeer and others.

Okla., Woodward.—Machinery.—Woodward Foundry & Machine Co., capital \$25,000, inceptd. by Chas. H. Martin, Henry Hageman and Wm. H. Smith.

Va., Richmond.—Locomotive Castings.—American Locomotive Co. purchased plant and equipment of Richmond Iron Works; manufacture locomotive castings; reported to expend \$75,000 to re-equip and enlarge plant.

N. Va., Roanoke.—Steel Castings Foundry.—Norfolk & Western Ry., J. E. Crawford, Ch. Engr., authorized expenditure of \$33,000 to purchase and install electric furnace to mold large steel castings needed in locomotive shops.

Va., Salem.—Mill Machinery.—Salem Foundry & Machine Works, John E. Shank, Pres.-Mgr., will reconstruct buildings by company plans; details not decided; install mill machinery. Lately noted to rebuild plant burned at loss of \$60,000. (See Machinery Wanted—Building Materials; Motors; Iron-working Machinery; Wood-working Machinery.)

GAS AND OIL ENTERPRISES

Ga., Macon.—Gas Plant.—Macon Gas Co. will install machinery costing \$25,000.

Kentucky.—Oil Refinery.—Kentucky Oil & Refining Co. chartered by Clement M. Egner and others.

Ky., Louisville.—J. N. Marcum Oil & Gas Co., capital \$64,000, inceptd. by J. N. Marcum, B. F. Roberts and R. L. Sweet.

Ky., Winchester.—Rex Oil & Gas Co., capital \$20,000, inceptd. by F. W. Davis, J. M. Stevenson, L. C. Young and others.

Mo., Kansas City.—General Oil & Mining Co., capital \$12,000, inceptd. by W. G. Peters, F. L. Shipp and R. B. Hayes.

Mo., Kansas City.—Waukonis Oil & Gas Co., capital \$30,000, inceptd. by Jas. T. Bradley and others.

Mo., Kansas City.—Proven Fielder Land Gas Co., capital \$25,000, inceptd. by C. B. Leaval and others.

Mo., Kansas City.—Brown Oil & Gas Co., capital \$10,000, inceptd. by Z. D. Brown and others.

Mo., Kansas City.—Fairfield Oil & Gas Co., capital \$40,000, inceptd. by W. S. Pontius and others.

Okla., Bartlesville.—Turner Drouot Oil Co., capital \$20,000, inceptd. by Jos. Drouot and others.

Okla., Bartlesville.—Gasoline.—Barco Gasoline Co., capital \$300,000, inceptd. by Thos. Chestnut, T. K. Smith and C. P. Quinlan.

Okla., Bartlesville.—American Contracting & Producing Co., capital \$10,000, inceptd. by H. M. Giehrst and others.

Okla., Cleveland.—Modoc Oil Co., capital \$10,000, inceptd. by A. M. Richards and others.

Okla., Lawton.—Galloway Oil Co., capital \$50,000, inceptd. by E. B. Dunlap and others.

Okla., Muskogee.—Helen Oil Co., capital \$50,000, inceptd. by Ira E. Cornelius, W. M. Briscoe and A. L. Harris.

Okla., Muskogee.—Oklamo Oil Co., capital \$20,000, inceptd. by A. C. Wilcoxon and F. J. Conway of Muskogee, and B. F. Cason of Kansas City, Mo.

Okla., Okmulgee.—Gasoline.—Polar Producing & Gasoline Co., capital \$500,000, inceptd. by E. W. Kimbley, R. D. Donnelly and C. F. Sibble.

Okla., Okmulgee.—Fair Oil & Gas Co., capital \$26,000, inceptd. by Henry C. Fair and others.

Okla., Oklahoma City.—Oil Refinery.—Shallow Fields Oil & Refinery Co., capital \$2000, inceptd. by Don Lawhead and H. N. Boardman of Oklahoma City, and H. H. Rhodes of Hennessey, Okla.

Okla., Oklahoma City.—Dorothy Oil & Gas Co., capital \$100,000, inceptd. by C. N. Whittington, Guy H. Fuller and John W. Scothern.

Okla., Oklahoma City.—Dodson Oil & Gas Co., capital \$100,000, inceptd. by G. H. Dodson and I. J. Myers of Oklahoma City, and J. C. Corssman of Edmond, Okla.

Okla., Okmulgee.—Federal Creek Oil Co. inceptd. by J. Belford and others.

S. C., Charleston.—Oil Station.—Gulf Refining Co. (main office, Pittsburgh, Pa.) purchased 17-acre site on Cooper River on which to build oil station; construct storage tanks, piers, wharves and other facilities.

Tex., Beaumont.—St. Anthony Oil Co., capital \$10,000, inceptd. by J. S. MacNamara and others.

Tex., Bowie.—Post Oak Oil & Gas Co., capital \$200, inceptd. by C. C. Hutchinson and A. E. Thomas of Bowie and L. B. Moore of Bellevue, Texas.

Tex., Houston.—Castell Oil Co., capital \$25,000, inceptd. by John J. Castell and others.

Tex., Houston.—Lea Humble Oil Co., capital \$40,000, inceptd. by L. A. Rockwell and others.

Tex., Houston.—The Texas Co. directors recommended increase of capital from \$55,500,000 to \$69,375,000; stockholders meet June 22 to vote on this proposal.

Tex., Rosenberg.—Success Oil Co., capital \$35,000, inceptd. by Chas. E. Anderson, Sr., and others, all of Austin, Tex.

Tex., Texas City.—Oil Casing.—Pierce-Fordey Oil Assn. of St. Louis, Mo., will erect casing and casing plant.

W. Va., Wheeling.—Mack Oil & Gas Co., capital \$500, inceptd. by H. L. McKown and others.

HYDRO-ELECTRIC PLANTS

Ala., Columbia.—South Alabama Power Co., Dothan, Ala., is rumored to invest \$250,000 for hydro-electric development on Omusee Creek near Columbia; has contract to furnish electricity to City of Dothan; no further details now ready.

N. C., Charlotte.—Western Carolina Power Co. (subsidiary of Southern Power Co.) amended charter, providing increase of capital from \$300,000 to \$4,500,000; no new developments contemplated.

N. C., Laurinburg.—Palmetto Power & Light Co., Chas. E. Johnson, Pres., will construct transmission line from Laurinburg to point on Wateree River, about 7 mi. from Camden, S. C., to receive power from Wateree Power Co.; has begun preliminary survey. (Under Electric Plants lately noted inceptd., capital \$200,000; subsidiary of Carolina Power & Light Co.)

N. C., Tuxedo.—Blue Ridge Power Co., John A. Law, Pres., Spartanburg, S. C., decided details for hydro-electric plant; let contract to Willard, Boggs & Co., Hendersonville, N. C., to construct dam 121 ft. high; this will back up waters of Green River to submerge more than 400 acres; fall from dam to power-house will generate 15,000 H. P.; build steel tower electric transmission lines from development site to Hendersonville and Spartanburg; construct 10-mi. drive around reservoir site; has plans for this improvement; contemplates general lake shore resort; already invested \$250,000 for waterpowers, several thousand acres of land, etc. (Previously reported inceptd., etc.)

ICE AND COLD-STORAGE PLANTS

Okla., Picher.—Central Ice & Water Co., capital \$16,500, inceptd. by John Comba of Picher, Q. O. Crane of Dearing, Kans., and Mose Elliott of Webb City, Mo.

LAND DEVELOPMENTS

Fla., Titusville.—De Soto Beach Improvement Co., capital \$20,000, inceptd.; Rufus M. Robbins, Pres., West Palm Beach, Fla.; Harry Wilson, V.P.; R. P. Robbins, Secy.-Treas.; both of Titusville.

N. C., Lillington.—Carolina Town Site Co., capital \$100,000, inceptd. by C. R. Baggett of Lillington, E. A. Tennis, Waldorf-Astoria, New York; S. H. Rankin, J. Emerson Shaeffer and C. T. Logan of Salina, Kan.

N. C., Lillington.—Central Carolina Land Co., capital \$100,000, inceptd. by C. R. Baggett of Lillington, E. A. Tennis, Waldorf-Astoria, New York; S. H. Rankin, J. Emerson Shaeffer and C. T. Logan of Salina, Kan.

N. C., Swannquarter.—Hyde County Land & Lumber Co., Berryville, Va., organized with H. C. Warden, Pres.; S. L. Hoover, Harrisonburg, Va., V.P.; W. A. Baker, Winchester, Va., Secy.-Treas.; W. B. Stalnaker,

Mgr.; capital stock \$300,000; develop 12,000 acres; farming and timber cutting. (Additional facts lately noted.)

Okla., Oklahoma City.—Glenwood Corp., capital \$100,000, chartered; Edgar Z. Wallover, W. R. Ramsey and W. E. Ramsey.

S. C., Columbia.—Bay View Land Co. increased capital from \$6000 to \$10,000.

Tenn., Memphis.—Bluff City Broom Corn Co., capital \$25,000, inceptd. by H. E. Ehrlicher, M. C. Hatcher, H. E. Sadler and others.

Tex., San Antonio.—Texas Agricultural Co., capital \$100,000, inceptd. by Florence R. Ramer of San Antonio, W. B. Baxter, Kerens, Tex., and Frank A. Kane, Seattle, Wash.

Va., Martinsville.—West View Land Co., capital \$15,000, inceptd.; E. J. Davis, Pres.; S. S. Stephens, Secy.

Va., Roanoke.—Wildwood Corp., capital \$100,000, chartered; J. T. Randy, Pres.; L. E. St. Clair, Secy.—Treas.; purchased and will develop the Wertz lands, 294 acres, South Roanoke, into residential property.

LUMBER MANUFACTURING

Ark., Moro.—Beaver Dam Lumber Co., capital \$10,000, inceptd. by J. N. and W. B. Carroll and E. L. Black of Brinkley, Ark.

Fla., Kendall.—Coward & Hinely Bros. will rebuild sawmill reported burned at loss of \$3000 on machinery and material.

Fla., Tampa.—Landeck Lumber Co., capital \$20,000, inceptd.; H. F. Landeck, Pres.; Oshkosh, Wis.; G. J. Landeck, V.-P. and Treas., Milwaukee, Wis.; John J. Earle, Secy., Tampa.

Ky., Pineville.—Harlan-Knox Coal & Lumber Co., capital \$20,000, inceptd. by A. Lunsford, A. Caruthers and Walter Shuff.

N. C., Norwood.—Norwood Lumber Co., capital \$12,000, inceptd. by J. C. Hurley, W. S. Pendleton and others.

S. C., Columbia.—Fallaw Lumber Co., 716 Divine St., organized with E. O. Fallaw, 4013 Ridgewood St., Pres. and Mgr.; M. M. Fallaw, Secy. (Lately noted inceptd., capital \$3000.)

Va., Norfolk.—Moulton Lumber Co., capital \$15,000, inceptd.; H. V. Moulton, Pres.; Duke, N. C.; L. H. Simpson, Secy.—Treas., Norfolk.

METAL-WORKING PLANTS

Tex., Weatherford.—Wire Buckles.—Acme Wire Buckle Co., capital \$10,000, inceptd. by W. C. Ragsdale and D. E. Eddleman of Weatherford, and R. A. Eddleman of La Junta, Cal.

W. Va., Huntington.—Anchor Chains.—Hayden Corbett Chain Co., Columbus, Ohio, will erect 515x40-ft. frame building with asbestos sides and roof; no contract; plans by F. L. Packard of Columbus; mainly building own equipment; install electric motors. Lately noted to establish plant to manufacture anchor chains for sea-going vessels. (See Machinery Wanted—Motors.)

MINING

Ala., Birmingham.—Graphite.—Atlas Graphite Corp., capital \$125,000, chartered; L. H. Weller, Pres.; C. E. Massey, V.-P.; John M. Hughes, Secy.—Treas.

Ala., Jasper.—Graphite.—Republie Graphite Co., capital \$100,000, inceptd. by John H. Bankhead, Jr., H. E. McCormack, W. A. Clark and others.

Ark., Mountain Home.—Lead and Zinc.—Ike Winstead and others are reported to build 50-ton mill.

Ga., Adairsville.—Bauxite.—Warner Mining Co., J. H. Warner, Pres., will develop bauxite mines; purchased machinery.

Ky., Everts.—Sugar Camp Mining Co., capital \$10,000, inceptd. by W. E. Kelly, Frank Kelly and H. M. Richards.

Md., Elkton.—Duntley-Cotton Mines Co., chartered with \$95,000 capital by Clement M. Egner and others.

Mo., Joplin.—Zinc.—Malcono Zinc Corp., capital \$60,000, chartered by W. R. Davis, W. T. Burress and L. B. Dennis.

Mo., Kansas City.—General Oil & Mining Co., capital \$12,000, inceptd. by W. G. Peters, F. L. Shipp and R. R. Hayes.

Mo., Neck City.—Lead and Zinc.—Missouri Mines Co. is considering plans for construction of 1000-ton concentrating plant and installation of steam shovel for open-pit mining.

Okla., Oklahoma City.—Copper.—Oklahoma City Copper Co., capital \$10,000, inceptd. by L. E. Knight, F. C. Boasen and Newton Avery.

Okla., Century.—Lead and Zinc.—Lucky

Extension Mining Co. contemplates building mill.

Okla., Picher.—J. J. McLellan and Ray Munson of Webb City and Cartersville, Mo., contemplates building concentrating plant.

Tex., Toyah.—Sulphur.—American Sulphur Co., H. B. Scofield, Secy., Majestic Hotel Bldg., Lake Charles, La., advises Manufacturers Record: Expect to erect machinery to extract sulphur from gypsum and rock; retrofit system. (See Machinery Wanted—Mining Machinery.)

Va., Richmond.—Iron.—Southeastern Iron Corp., capital \$500,000, chartered; Francis H. Hardy, Pres.; Truman F. Miller, Secy.; both of Chicago, Ill.

MISCELLANEOUS CONSTRUCTION

Ala., Mobile.—Telfer System.—City votes June 25 on \$55,000 bonds to construct its portion of overhead telfer system. Harry Pillans, Mayor. (Lately noted.)

Fla., Clearwater.—Dredging, etc.—Donald Alvord, Harbor Oaks, Clearwater, asks bids for dredging channel and filling pond. (See Machinery Wanted—Dredging Channel.)

Md., Baltimore.—Lumber Docks, etc.—Veyerhaeuser Timber Co., Tacoma, Wash., purchased 50 acres of municipal quarantine property on Anne Arundel County shore of Patapsco River; will build docks and sheds, dredge channel and provide other improvements for handling lumber shipped from Tacoma by way of Panama Canal to Baltimore; from here, ship to buyers east of Mississippi River.

Md., Baltimore.—Wharf.—Terminal Warehouse Co. is having plans prepared by Owens & Sisco, Continental Bldg., Baltimore, for addition and improvements to Bond Street wharf; contractors estimating are: Chas. L. Stockhausen Co., Marine National Bank Bldg.; B. F. Bennett Building Co., 123 S. Howard St.; John Waters Building Co., 23 E. Centre St.; Consolidated Engineering Co., Calvert Bldg.; all of Baltimore.

Tenn., Chattanooga.—Stone Wall, etc.—City will construct stone wall and wing dams at city wharf; invites bids until June 2, to include excavation, backfilling and concrete coping; plans by J. D. Alsop, 1102 James Bldg., Chattanooga. (See Machinery Wanted—Wharf Work.)

Tex., Orange.—Wharf, etc.—City let contract Midland Bridge Co. of Kansas; City, Mo., at about \$5000 to construct 100-ft. wharf frontage at foot of 4th St., wharf wrestle from approach of levee of municipal slip to wharves and erection of warehouse foundation.

MISCELLANEOUS ENTERPRISES

Ala., Birmingham.—Stock Raising.—Mutual Hog & Stock Raising Co., capital \$25,000, inceptd.; S. J. Hare, Pres.; F. A. Carter, Secy.—Treas.; F. L. Kendrick, Gen. Mgr.

Ala., Linden.—Printing.—Marengo Printing Co., capital \$3000, inceptd. by S. W. Compton and others.

Ala., Mobile.—Shipping.—Whitney-Badden Shipping Co., capital \$30,000, inceptd. by Edward L. Whitney, Lester A. Badden, G. S. Badden and others.

Ark., Arkadelphia.—Elevator.—Arkadelphia Milling Co., J. M. Adams, Pres., and W. N. Adams, Mgr., will expend \$25,000 to erect fireproof reinforced concrete grain tanks; has not purchased machinery; construction contract lately noted let to Southwestern Engineering Co., Springfield, Mo. (See Machinery Wanted—Grain Elevator Equipment.)

Fla., Jacksonville.—Grain Elevator.—Florida Grain & Elevator Co., capital \$50,000, inceptd.; build grain elevator; C. W. Zaring, Pres.; C. M. Lewis, V.-P.; W. S. Brandon, Secy.; E. W. Fleming, Treas. (Mr. Zaring lately reported as interested in erection of grain elevator.)

Fla., Miami.—Engineering and Contracting.—Duval & Co., capital \$50,000, inceptd.; Hugh F. Duval, Pres.; Leila M. Duval, V.-P.; A. F. Given, Secy.—Treas.

Ga., Moultrie.—Grain Elevator.—W. J. Matthews of Matthews Trading Co. and others organized company to build grain elevator; daily capacity 60 tons; storage capacity 25,000 bu.

La., New Orleans.—Printing, etc.—Schumert-Warfield-Watson, Inc., Oscar Schumert, Pres., will enlarge printing and engraving plant; has 50,000 sq. ft. floor space; purchased additional equipment.

Mo., Kansas City.—Incinerator.—City will build incinerator; daily capacity 100 tons; \$100,000 bonds available. Address The Mayor.

Mo., Kansas City.—Engineering.—Reyburn & Sherman Engineering & Construction Co., capital \$10,000, inceptd. by Roscoe Reyburn, H. F. Harrison and Jas. H. Sherman.

N. C., Lillington.—Construction.—Keystone Construction Co., capital \$100,000, inceptd. by C. R. Baggett of Lillington, E. A. Tennis, Waldorf-Astoria, New York; S. H. Rankin, J. Emerson Shaeffer and C. T. Logan of Sallina, Kan.

Okla., Henryetta.—Construction.—Henryetta Dewar Kusa Construction Co., capital \$250,000, inceptd. by J. J. Harrison, C. W. Burnett and Barclay Morgan.

Okla., Noel.—Grain Elevator.—Johnston & Douglas (W. B. Johnston of Enid, Okla.) will build 12,000-bu. grain elevator.

Okla., Tulsa.—Construction.—Tulsa Construction Co., capital \$5000, inceptd. by B. F. Rucks, H. A. Porter and Grey Moore.

S. C., Camden.—Livestock.—Camden Beef Cattle Farms increased capital from \$10,000 to \$25,000.

S. C., Greenville.—Printing and Binding.—Oulla Printing & Binding Co., Anderson, S. C., will occupy building to be erected by J. W. Norwood; structure will be 25x100 ft.; 1 story and basement; F. H. and J. G. Cunningham, Archts., Greenville.

Tex., Orange.—Laundry.—Paragon Laundry, Chas. W. McFarlane, Prop., will erect addition and install machinery.

Tex., Sherman.—Seeds.—Ferguson Seed Farms, A. M. Ferguson, Pres., 529 E. Jones St., advises Manufacturers Record: Acquired 150x300-ft. lot, with gin (of Scott & McKown), consisting of 8 stands and power plant; purchased additional 100x175-ft. lot; eventually use latter for warehouses and special plants; overhaul gin and install additional machinery; contemplates new seed-corn plant, capacity 700 to 1200 bu. daily, and seed-grain elevator of 50,000 to 75,000 bu. capacity; will need machinery; use electric or oil power; later will build warehouses about 150x75 ft., 3 stories.

Va., Newport News.—Construction.—Southern Construction & Supply Co., capital \$25,000, inceptd.; H. D. Coleman, Pres.; R. J. Lackey, Secy.—Treas.

MISCELLANEOUS FACTORIES

Ala., Birmingham.—Brooms.—Thos. C. Dobbs, 204 Courthouse, contemplates installing machinery to manufacture brooms. (See Machinery Wanted—Broom Machinery.)

Ala., Brundidge.—Peanut Oil.—Hightower Peanut Oil Mill, capital \$35,000, inceptd.; establish mill to manufacture peanut oil.

Ala., Dothan.—Peanut Oil, etc.—Young, Sanders & Adams will erect \$50,000 peanut oil, fertilizer and feedmill.

Ala., Mobile.—Paper Boxes.—Mobile Box & Paper Co., capital \$15,000, inceptd.; Oscar Green, Pres.; Geo. J. Clausen, V.-P.; J. F. Carter, Jr., Secy.—Treas.

Ala., Woodward.—Naphthalene.—American Tar Product Co. is reported to erect addition to manufacture naphthalene.

Ark., Little Rock.—Electric Fans.—Arkansas Prepay Fan Co., capital \$30,000, inceptd. by E. T. Reeves, Hugh D. Hart, Gus Bernier and others; manufacture fans and other electrical appliances.

Fla., Tampa.—Soap.—Royal Palm Soap Co. will rebuild plant reported burned.

Ga., Atlanta.—Paint.—Palladium Paint Co., capital \$25,000, inceptd. by N. T. Poole, A. W. Stirling and F. A. Quillian.

Ga., Atlanta.—Skirts.—Star Skirt Mfg. Co., capital \$7000, inceptd. by Sam Mann and Morris T. Constangy.

Ga., Cairo.—Syrup.—Cairo Syrup Co. organized with E. L. Cain, Pres.—Mgr.; E. L. Jekis, V.-P.; H. G. Cannon, Secy.—Treas.; refine and can syrup.

Ga., Macon.—Syrup.—R. L. Walker, Farm Product Exchange, is interested in proposed installation of machinery to refine and can sugar-cane syrup. (See Machinery Wanted—Syrup Machinery.)

Ga., Moultrie.—Overalls, Bags, etc.—Chamber of Commerce, Ben. Vanalson, Secy., is interested in locating factory to manufacture overalls, pants and bags. (See Machinery Wanted—Overall Machinery, etc.)

Ky., Louisville.—Soap.—Louisville Soap Co. let contract to Grainger & Co., Louisville, to erect fireproof building; plans by Fred. Erhart, Louisville; install machinery (glycerine evaporating and stills) to manufacture crude and refined glycerine.

Md., Baltimore.—Bakery.—Nicholas Gayo, 1370 Andre St., let contract Herbert & Prodoehl, Munsey Bldg., Baltimore, to erect bakery at Andre and Clements Sts.; 26x35 ft.; plans by Oliver B. Wight, 1122 Munsey Bldg.

Md., Elkton.—Lotus Mfg. Co. chartered by Clement M. Egner and others.

Mo., Kansas City.—Mattresses.—Underwood Mattress Co., capital \$10,000, inceptd. by T. J. and B. D. Underwood and S. H. Leach.

Mo., Kansas City.—Cloth Gloves.—Boss Mfg. Co. will occupy 6-story brick factory to be erected by Emma J. Meyer; cost \$130,000.

Mo., St. Louis.—Chemical Products.—American Chemical Products Co., capital \$300, inceptd. by Fred. Berlin, F. W. Duncan and E. J. Berlin.

Mo., St. Louis.—Popcorn Products.—American Popcorn Products Co., capital \$30,000, inceptd. by Wm. L. Mason, Abe Altman and R. T. Brownrigg.

N. C., Ashokle.—Peanut Plant.—Columbia Peanut Co. of Norfolk, Va., will operate peanut factory to be erected by Holmes & Dawson of Norfolk; factory will be 4 stories, 70x130 ft., frame; also erect 2 frame warehouses, 2 stories and 1 story, respectively; 4-acre site; Burwell Riddick & Son, Contrs., Suffolk, Va.

N. C., Reidsville.—Tobacco.—American Tobacco Co. (111 Fifth Ave., New York) will erect 196x33-ft building and additions, including boiler-room, to present factory; cost \$125,000; mill construction; general contracting under supervision of the company's engineering department, Arthur C. Ehrlich, Chief Engr., Reidsville. Lately noted to build cigarette factory. (See Machinery Wanted—Contractors' Equipment.)

Okla., Tulsa.—Powell & Mahon Mfg. Co., capital \$25,000, inceptd. by L. W. Rook, Remington Rogers and W. J. Powell.

Okla., Tulsa.—Candy.—H. O. Candy Co., capital \$2000, inceptd. by J. K. Hogan of Tulsa, Virginia K. Hogan and Chas. C. Hogan of Tulsa.

S. C., Greenville.—Sweet Potato Products.—Williams Company, capital \$200,000, inceptd. by J. Hudson Williams, T. C. Gower, W. C. Cleveland and B. F. Rush; has plant and will increase capacity.

S. C., Sumter.—Coffee Roasting.—P. G. Bowman will erect coffee-roasting plant, small capacity. (See Machinery Wanted—Roasting Machinery.)

Tenn., Chattanooga.—Tannery.—Robert Scholze Tannery Co., capital \$100,000, inceptd. by Geo. E. Scholze, Alfred J. Scholze and others.

Tenn., Knoxville.—Ferro Alloys.—Southern Ferro Alloys Co., capital \$210,000, inceptd. by J. Harry Price, W. F. Black, Geo. C. Hager and others; manufacture ferro-silicon, ferro-manganese, ferro-chrome and other ferro alloys.

Tenn., Memphis.—Brooms and Brushes.—Memphis Broom & Brush Co., capital \$20,000, inceptd. by H. E. Ehrlicher, M. C. Hatcher, H. E. Sadler and others.

Tex., El Paso.—Roofing.—Frazier Roofing Co., capital \$3000, inceptd. by J. W. Frazier, J. L. Frazier and E. H. Rodgers.

Tex., Fort Worth.—Tabulators.—Matrix Ruled Form & Tabulator Co. inceptd. by A. D. Evans and G. C. Arnoux of Fort Worth, and Geo. W. Ittner of St. Louis.

Tex., Fort Worth.—Bags and Burlap.—Fort Worth Bag & Burlap Co., 101 S. Boaz St., organized; R. J. Brewton, Pres.—Mgr.; Bert K. Smith, V.-P.; J. R. Wolfe, Secy.; arranging for erection of 2-story concrete building, 100 ft. sq.; install additional machines for manufacturing and patching bags; install printing presses and cutters; manufactures burlaps and cotton bags (lately noted inceptd., capital \$15,000.)

Tex., Houston.—Storage Batteries.—Houston Storage Battery Co., capital \$2500, inceptd. by E. S. Van Dyke, M. L. Keller and O. B. Clayton.

Tex., San Antonio.—Filko Co., capital \$4000, inceptd. by J. M. Watson, W. A. Daniel, A. H. Nathan and Early Northrup.

Va., Ivanhoe.—Carbide.—National Carbide Corp., capital \$350,000, chartered; H. G. Buchanan, Pres.; Holt S. Lloyd, Secy.—Treas.

Va., Norfolk.—Ink, etc.—Jasmine Ink Co. (reorganization of United Dealers' Buying Co., J. W. Grumiaux, Pres.) will organize; enlarge plant; United Dealers' Buying Co. also has offices and warehouse at Leroy, N. Y.; all interests to be removed to Norfolk; manufacture ink, paste and mucilage.

Va., Suffolk.—Peanut Oil.—Sea Island Cotton Oil Mill, Charleston, S. C., will build mill to manufacture oils, stock foods, etc.; principal product peanut oil; output for first year 5000 tons oil; initial cost \$50,000; erect 4 buildings; main mill, 2 stories, 48x100 ft.; office 22x30 ft.; warehouse, 2 stories, 64x120 ft.; boiler room; let contract A. Stallings of Suffolk.

W. Va., Warwood.—Fiber Boxes.—United States Fiber Box Co., Indianapolis, Ind., will build \$300,000 factory.

MOTOR CARS, GARAGES, TIRES, ETC.

Ga., Perry—Garage.—W. C. Wright will erect Ford service garage; brick.

Ky., Louisville.—Automobiles.—Metcalfe-Frank Motor Co., capital \$30,000, incptd. by Sam B. Metcalfe, Henry Frank and V. L. Metcalfe.

Md., Baltimore.—Automobile, Tires.—Dreadnaught Tire & Rubber Co., Eager and Fifth Sts., will increase capital from \$700,000 to \$1,400,000; plans additional facilities for manufacture automobile tires.

Md., Baltimore.—Garage.—Max Silverman, 1625 W. Mulberry St., will erect garage at Mount and Mulberry Sts.; 1 story; brick; 65x74 ft.; ordinary construction; cost \$5000; Callis & Callis, Architects, 2055 Kennedy Ave., Baltimore.

Md., Baltimore.—Garage.—Joseph A. Kraft (1223 E. Madison St.) and Elsie M. Kraft will erect 1-story garage at Harford Ave. and Abbottston St.; Fred Decker & Son, 900 S. Third St., Baltimore, are Architects and Contrs.

Mo., Kansas City.—Automobiles.—Price-Samann Motor Co., capital \$20,000, incptd. by Thos. P. Price, J. F. Samann and P. V. Price.

Mo., Kansas City.—Babst Motor Co., Ford agency, 3309 Troost Ave., will occupy building to be erected by Kate S. Cook; structure will be 2 stories; 80x108 ft.; plate-glass and terra-cotta front; cost \$50,000; Geo. L. Brown & Son, Kansas City.

Mo., Kansas City.—Ford Service Station.—Sam. F. Baker Motor Co., 3328 Main St., organized; Samuel F. Baker, Prest. and Mgr.; Mrs. Samuel F. Baker, V.-P.; install Ford service station; bids opened May 26 on mill-construction building, cost \$25,000; plans by Henry F. Holt; Edwin M. Price, Constr. Engr., both of 315 E. 10th St., Kansas City; open machinery bids July 1. Lately noted. (See Machinery Wanted—Garage and Machine Shop Equipment.)

Okla., Sapulpa.—Garage.—Geo. Kadahe of Sapulpa has contract to erect garage on South Main St.; 100x140 ft.; 1 story; brick; cost \$12,500.

S. C., Cheraw.—Automobiles.—Cheraw Motor Co., capital \$10,000, incptd. by J. L. Anderson, R. B. May and C. L. Pence.

Tenn., Memphis.—Service Station.—Storage Battery Service & Sales Co., capital \$5000, incptd. by W. H. Daniel, W. P. Metcalf, Roger Stanley and others.

Tex., Brenham.—Garage.—Texas Garage, capital \$2000, incptd. by J. J. Giddings, H. K. Dillon and H. G. Simmons.

Tex., Dallas.—Automobiles.—Paige Sales Co. of Texas, capital \$2000, incptd. by R. H. Reynolds, Jr., and Hal Hillman of Dallas, F. L. Jewett and others of Detroit, Mich.

Tex., Gainesville.—Automobiles.—Vaughan Automobile Co., capital \$7500, incptd. by W. W. Vaughan and T. F. Robbins of Gainesville and Frank B. Vaughan of Seguin, Tex.

**RAILWAY SHOPS, TERMINALS
ROUNDHOUSES, ETC.**

S. C., Anderson.—Blue Ridge Ry., J. R. Anderson, Supt., has plans for rebuilding round shops; erect galvanized sheet-iron building, 60x100 ft., costing \$5000; considering erection of coach shed, 40x70 ft.; plans submitted to contractors for bids. (Lately noted.)

N. C., Selma.—Southern Ry., B. Herman, Engr., Charlotte, N. C., advises Manufacturers Record: Engine terminal includes 300-ton steel coaling station, contract let to Fairbanks, Morse & Co., Chicago; 2 Robertson cinder conveyors; 100,000-gal. water tank, with deep well and pumps; small repair yard with shop buildings, and compressed-air plant; entire freight yard (including terminal) construction contracts let to H. C. McCrary, Knoxville, Tenn. (Lately further described.)

Va., Norfolk.—Virginian Ry., H. Fernstrom, Ch. Engr., Norfolk, will provide additional dumping facilities for coal pier; let contract Wellman-Seaver-Morgan Co., Cleveland, O., Virginia Bridge & Iron Co., Roanoke, Va., and John P. Pettyjohn & Co., Lynchburg, for concrete and steel work; cost \$673,000.

ROAD AND STREET WORK

Ala., Birmingham.—City let contract Dunn Construction Co., Birmingham, at \$14,000 to pave 24th St., from Avenue B to Avenue F with sheet asphalt.

Ala., Gadsden.—City plans to pave Walnut St., from Fifth to Twelfth; pave Montgomery Ave. and short section of Fifth St., curb and gutter Cherry St., from 5th to

6th St., and construct sidewalks, curbs and gutters on Fourth Ave., 11th to 12th St.; estimated total cost \$41,000, including storm and lateral sewers, lead pipes, etc.; Ernest Smith, City Engr.

Ala., Selma.—City, W. O. Crisman, City Engr., rejected bids on street pavements; amount involved about \$75,000; will readvertise. (These bids lately noted for May 18.)

Ark., Des Arc.—Prairie County Road Improvement Dist. No. 4, E. E. Washburn, Engr., will construct 9 mi. macadam road, from Prairie-Woodruff county line west through Des Arc; estimated cost \$6000 per mi.; contemplates letting contract about June 15. (See Machinery Wanted—Road Construction.)

Ark., Jonesboro.—City let contract Kaw Paving Co., Topeka, Kans., at \$300,000 for 15 mi. paving; asphaltic concrete, with concrete curb and gutter, etc.; Cobb & Lee, Engineers, Jonesboro. (Lately noted inviting bids.)

Ark., Wynne.—Cross County, Road Improvement Dist. No. 1, will construct 18½ mi. gravel road with concrete; pile bridges; 106,000 cu. yds. excavation, 72 lin. ft. 18-in. pipe, 192 lin. ft. 24-in. pipe, 610 lin. ft. pile bridges, 130 cu. yds. reinforced concrete, 83 cu. yds. plain concrete; local creek gravel, 36,886 cu. yds., screened, loaded, hauled, rolled, etc., in finished road; bids until June 15; C. B. Bailey, Engr., Wynne; lately noted. (See Machinery Wanted—Road Construction.)

Fla., Orlando.—City defeated \$70,000 bonds for brick paving. (Lately noted.)

Fla., Orlando.—Orange County, Road Dist. No. 1, voted \$40,000 bonds to construct 40 mi. clay roads. Address County Commrs. (Lately noted.)

Fla., Orlando.—City let contract F. G. Proudfoot of Miami at \$90,968.92 to pave with asphalt sections of 1st, 3d, 5th and 6th Sts. and Ave. A; rejected other bids aggregating \$50,000 and will readvertise; also let contract S. A. Belcher Co. at \$292.50 to resurface and oil roads.

Ga., Atlanta.—C. M. Holland, Purchasing Agent, 597 Courthouse, invites bids until June 16 to pave Bowen St. from Chattahoochee Ave. to Howell Mill Road with clay-brook or penetration macadam; Brady St. from Marietta to Tenth Sts., Peachtree Road from city limits to Buckhead St., Gordon Road from city limits to Hightower Road; Ashby St. from Murphy to Decker Sts., and Lakewood Park Driveways; all with concrete, vitrified brick, bituminous concrete, bituminous macadam or patented pavement such as bitoslag, bitulithic, vitrolithic, etc.; suitable gutters; total paving 100,000 sq. yds., and gutters, 50,000 yds. (See Machinery Wanted—Paving.)

Ga., Griffin.—City contemplates improving streets; cost \$135,000. K. P. Bridges, Clerk and Treas.

Ga., Savannah.—City will pave Lathrop Ave. and complete paving on Wheaton St. and Water Ave.; Board of Purchase purchased Portland cement and crushed stone, costing \$14,368.

Ky., Morganfield.—City, Norman R. Orcutt, City Engr., will construct paving, sidewalks and gutters on Spalding St.; plans have been drawn.

La., Crowley.—Acadia Parish Supervisors will construct 70 mi. metal-surface roads; bids until June 26. (See Machinery Wanted—Road Construction.)

La., Cameron.—Cameron Parish, Road Dist. No. 1, voted \$13,000 bonds to construct road from Hackberry Island to Calcasieu Parish line. Address Police Jury.

La., De Ridder.—Beauregard Parish Police Jury asks bids until June 6 (postponed date) to construct dirt and gravel roads; about \$250,000 amount involved; has \$500,000 available for road construction; L. S. Bryant, De Ridder, Engr. Information supplied earlier in May stated as follows: Will construct 38 mi. of dirt road and 100 mi. of gravel roads; plan 2 main highways, north and south, one from De Ridder to Gillis, 33 mi., and one from De Ridder to De Quincey, 29 mi.; other roads are De Ridder to Dry Creek, 14 mi.; De Ridder to Ludington, 2 mi.; De Ridder to Merryville, 29 mi.; De Ridder to Sugartown, 16 mi.; Juanita to Starks, 32 mi. (See Machinery Wanted—Road Construction.)

La., Gretna.—City invites new bids until June 25 to pave with bitulithic and small granite blocks on concrete sub-base sections of Copernicus Ave., First, Washington, Anson and other streets; John Ehret, Mayor. Lately noted. (See Machinery Wanted—Paving.)

La., Marksville.—Avoyelles Parish Police Supvrs., E. Regard, Prest. and F. Couvillon,

Secy., R. D. No. 16, will construct about 30 mi. gravel roads; \$120,000 available; bids not yet asked; Engr., State Highway Dept., New Orleans. (Lately noted to issue \$120,000 bonds.)

La., Oberlin.—Allen Parish Supvrs., Geo. M. King, Jr., Secy., Road Dist. No. 2, ask bids, to be received at Kinder, La., June 28, on road construction, including dredging, grading, grubbing, clearing, draining, bridging; Division A, 129 stations, Kinder to Calcasieu river; B, 271.62 stations, Kinder to Landersdale; C, 219 stations, Kinder to Jefferson Davis Parish line; D, 399.73 stations, Kinder to Oberlin Ward line; F, 501.8 stations, Kinder to Indian Village; also Rd. No. 1, 182.86 stations; Rd. No. 2, 219 stations, and Rd. No. 3, 154.64 stations, St. Elmo Dist.; W. L. Stevens, Engr., 312 Whitney-Central Bank Bldg., New Orleans. (See Machinery Wanted—Road Construction.)

Md., Baltimore.—State Roads Commission, 601 Garrett Bldg., will construct 17.03 mi. roads as follows: Contracts No. W-16, Washington and Frederick counties, grading and draining Harpers Ferry Rd., 3.51 mi.; Contract W-17, Worcester County, grading and draining Pocomoke to Stockton Rd., 2.15 mi.; Contract C-9, Caroline County, building .65 mi. concrete road through Greensboro; Contract T-11, Talbot County, 4.63 mi. concrete road, Chabonne to St. Michaels; Contract 049-E, Cecil County, 2 sections gravel road between North East and Elkton, 0.26 mi. and 0.57 mi., surfaced with concrete; under Federal-aid Act, Contract P-16, Prince George's County, building section, 3.25 mi., Defense Highway from Bladensburg toward Annapolis, and Contract F-29, Frederick County, section 2.01 mi. from Buckeystown turnpike south; bids until June 12. (See Machinery Wanted—Road Construction.)

Md., Frederick.—Frederick County Commissioners, F. M. Stevens, Prest., and H. L. Gaver, Clerk, ask bids until July 2 to build section, about 4.38 mi., State-Aid Highway, on Lewistown-Creagerstown Rd. (See Machinery Wanted—Road Construction.)

Miss., Aberdeen.—Monroe County, G. T. Tubb, Commr., will improve 49 mi. sand-clay roads; \$50,000 available; open bids between July 1 and 10; L. E. Fish, Engr. Lately noted. (See Machinery Wanted—Road Machinery.)

Miss., Charleston.—Tallahatchie County rejected bids to construct 21.5 mi. 16-ft. oil graveled road; bids opened May 18; will relet June 5; A. N. Bullitt, Engr., 92 N. Tucker St., Memphis, Tenn. Bids lately noted. (See Machinery Wanted—Road Construction.)

Miss., Clarksdale.—City, W. S. Bobo, City Engr., let contract to Memphis Asphalt & Paving Co., Memphis, Tenn., for 22,000 sq. yds. asphaltic concrete pavement; curb, gutter and walk contract let to M. H. Ellis, Clarksdale; paving price with 5-yr. guarantee, \$2.19; \$75,000 available. (Bids lately noted.)

Miss., Hattiesburg.—Forrest County, J. K. Denham, Commr., will improve Hattiesburg-Richton, Hattiesburg-Eatonville, Hattiesburg-Brooklyn, and Brooklyn-Bond Rds.; about 45.8 mi.; bids until June 5; includes 62,100 lin. ft. fence and wire fence; 71.6 acres clearing and grubbing; 105,200 cu. yds. grading; 44,800 cu. yds. overhaul 100 ft.; 2004 lin. ft. 15-in. pipe, 678 ft. 18-in. pipe and 1028 ft. 24-in. pipe, all in place; 623.5 cu. yds. plain concrete; 789 stations grader work; 626.40 cu. yds. gravel surface; 63,800 B. M. lumber in bridges and culverts; 70,130 cu. yds. gravel hauled 1 mi.; 2290 cu. yds. gravel screened; F. T. Myers, Engr. (See Machinery Wanted—Road Construction.)

Miss., Liberty.—Amite County, Road Dist. No. 3, is reported to have voted \$80,000 bonds to construct roads. Address County Commissioners.

N. C., Asheville.—Buncombe County Commissioners, W. E. Johnson, Chrmn., let contract to Clyde Reed Construction Co., Asheville, for 9½ mi. construction on Hendersonville Rd.; concrete, 20 ft. wide, average 6 or more inches, with some grading; about \$175,000 involved; T. M. Howerton, Engr., Asheville. (Bids lately noted.)

N. C., Hickory.—City, J. W. Ballew, City Mgr., let contract to Ely Construction Co., Charlotte, N. C., to pave 1.5 mi. on 30 streets with sheet asphalt; concrete curb and gutters, combined type; \$40,000 available; Chas. O. Boyd, Resident Engr. for J. N. Ambler, Consult. Engr., Winston-Salem, N. C. (Bids lately noted.)

N. C., Mocksville.—City contemplates constructing 4 mi. concrete sidewalks. Address J. P. Green.

N. C., Smithfield.—Johnston County Commissioners, Wilders Township, will improve

roads; let contract June 2; E. P. Lore, Engr., Smithfield. (See Machinery Wanted—Road Construction.)

N. C., Tuxedo.—Blue Ridge Power Co., Spartanburg, S. C., will build 10-mi. drive around reservoir site. (See Hydro-Electric Plants.)

N. C., West Asheville.—City authorized street improvements costing \$4000; let contract E. I. Hollingsworth at \$1000 to grade State St. and Pennsylvania Ave.; Duckett & Campbell of West Asheville for 300 ft. of sidewalks, curbs and gutters; cost of sidewalk paving, \$3000.

Tenn., Lawrenceburg.—Lawrence County Road Com., E. G. Parkes, Secy., asks bids until June 15 to construct 3 roads; approximately as follows: Road No. 2, 23½ mi. graded, drained, and 11 mi. chert surfacing; \$60,000 available; Road No. 3, Ethridge to Cross Roads, 3¼ mi. graded, drained and surfaced with chert, \$10,000; Road No. 4, Henryville Rd., 11½ mi. graded and drained, \$18,000. (See Machinery Wanted—Road Construction.)

Tenn., Wartburg.—Morgan County Commissioners let contract Carr Construction Co., Harriman, Tenn., to construct roads; involves ultimate expenditure of \$200,000.

Tex., Bastrop.—Bastrop County, Elgin Precinct, defeated \$150,000 bonds to construct roads. (Lately noted.)

Tex., Beaumont.—O. C. Herrenkln, Beaumont, has contract at \$5514 to repair approaches to U. S. postoffice.

Tex., Crosbyton.—Crosby County, John K. Fullington, County Commr., will construct roads, with bridges and culverts, cost \$50,000. Crosby County Road Dist. No. 1 lately noted issuing \$60,000 bonds. (See Machinery Wanted—Engines (Tractor).)

Tex., Fort Worth.—City let contract to H. K. McCollum, 210 First National Bank Bldg., Fort Worth, to construct 2156 sq. yds. vertical fiber brick; \$2700 available; F. J. Von Zuben, City Engr. (Bids lately noted.)

Tex., Gorman.—City voted \$10,000 bonds to pave streets. Address The Mayor.

Tex., Houston.—Harris County Commrs. ordered election for June 27 to vote on \$1,100,000 bonds to construct roads; plan to pave 246 mi. with bituminous material and \$100,000 to pave 10 mi. with concrete.

Tex., Houston.—Harris County Commrs. ordered election for June 27 to vote on \$1,100,000 bonds to construct roads; plan to expend \$1,000,000, pave 246 mi. with bituminous material and \$100,000 to pave 10 mi. with concrete.

Tex., Huntsville.—City is having paving plans and specifications for street improvements prepared by W. J. Kelly, Huntsville.

Tex., Huntsville.—Walker County, Bedias Dist., W. J. Kelly, County Engr., will construct roads; \$25,000 available.

Tex., Huntsville.—Walker County, Huntsville Road Dist., W. J. Kelly, County Engr., will expend \$150,000 to continue road improvements; has completed 85 mi. road, and constructed bridges. (Lately noted voting \$150,000 bonds.)

Tex., Huntsville.—Walker County, Goshen Road Dist., W. J. Kelly, County Engr., will expend \$12,000 to construct roads.

Tex., La Grange.—Fayette County Commissioners Court will construct reinforced concrete approaches 500 ft. long and 18 ft. wide, on Colorado river bridge; bids received June 1. Address County Clk.

Tex., Wichita Falls.—Wichita County voted \$750,000 bonds to construct roads. Address County Commrs. (Lately noted.)

Va., Christiansburg.—Montgomery County will grade and drain .8 mi. of road between Shawsville and Floyd County line; bids at Clerk's office until June 7; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted—Road Construction.)

Va., Richmond.—City let contract C. M. Angle at \$6847.60 for shaping, repairing, oiling and top-dressing roadways in Byrd and Chimborazo Parks and at Gamble's Hill.

Va., Standardsville.—Greene County Commissioners contemplate constructing 2 mi. of roads. E. D. Dunette, Road Commr., Colt, Va.

Va., Staunton.—City plans to construct granolithic sidewalk on Frederick St. between Augusta St. and Central Ave. and paving Middlebrook Rd. within city limits. Address The Mayor.

W. Va., Fairmont.—Marion County, Grant Dist., will construct 15 mi. brick and concrete roads; let contract June 11; Engr., Mr. Miller; A. G. Martin, Clerk County Court. Noted in April as voting \$195,000 bonds. (See Machinery Wanted—Road Construction.)

W. Va., Kingwood.—Preston County, Portland Dist., will construct following 15-ft. concrete roads, bids until June 16: Corinth Rd. No. 1, 3.9 mi.; Kingwood Rd. No. 3, 6.9 mi.; St. Joe-Brandonville Rd. No. 2, 5.7 mi.; alternate route—Terra Alta-St. Joe Rd., 6 mi.; H. E. Wilhelm, Dist. Engr., Kingwood. (See Machinery Wanted—Road Construction.)

W. Va., Martinsburg.—City voted \$195,000 bonds for paving and general improvements; John T. Nadenbousch, Secy., City Commr.

W. Va., Martinsburg.—Martinsburg & Potomac Turnpike Co., W. Hill Small, in charge of construction, will repair, by company force, 13 mi. water-bound macadam road with oil surface; cost about \$10,000. Lately noted. (See Machinery Wanted—Road Roller.)

Va., Richmond.—City let following contracts: John J. Curley, shaping and graveling roadbed of 35th St., from Leigh to O and Dickinson Sts., from Cowardin to Mill Road; total cost \$439,90; J. E. Andrews & Bro. to pave with granolithic portions of sidewalk on Colonial Ave. and Main St. at \$252.90 and \$314.60, respectively.

W. Va., Sutton.—Braxton County contemplates improving roads. G. C. Rexwood, Clerk.

SEWER CONSTRUCTION

Fla., Miami.—City let contract C. H. Lynn Co. at \$560.50 to construct sewers.

Ga., Columbus.—City votes in Sept. on \$150,000 bonds to improve sewers. Address The Mayor.

Ky., Owensboro.—City is having plans prepared by H. Talbot, City Engr., for construction of sewers in various sections.

Mo., Kansas City.—City let contract Kilen Bros., 3426 Michigan Ave., Kansas City, at \$15,200 to construct sewers.

Okla., Billings.—City invites bids until August 1 to construct sewer system, water-works and electric-light plant; cost \$50,000; Mackintosh-Walton Engineering Co., Engr., 1023 State National Bank Bldg., Oklahoma City; L. Panten, Pres. Board of Public Works.

Okla., Stillwater.—City contemplates constructing sanitary sewer system in Dist. No. 19. Address The Mayor.

Okla., Tulsa.—City will construct sanitary sewer in Dist. No. 123; bids until June 7; H. H. Wyss, City Engr. (See Machinery Wanted—Sewer Construction.)

Okla., Wilburton.—City will construct sanitary sewers and sewage-disposal plant; bids until June 4; Mackintosh-Walton Co., Engr., Oklahoma City; E. M. Cooper, Mayor. (See Machinery Wanted—Sewer Construction.)

S. C., Spartanburg.—City votes June 12 on \$40,000 bonds to extend sewer system. J. F. Floyd, Mayor.

Tenn., Maryville.—City contemplates voting on \$70,000 bonds to construct sewer system. Address The Mayor.

Tex., Elctra.—City will install complete system sewers and sewage-treatment plant; details not yet ready for announcement; plans and construction by M. Griffin O'Neil & Sons, 1505 Praetorian Bldg., Dallas, Tex. (Lately noted.)

W. Va., Weston.—State Legislature authorized \$44,000 appropriation for sewage-disposal plant at Weston Insane Asylum. Address State Board of Control, Charleston, W. Va.

SHIPBUILDING PLANTS

Fla., Milton.—Santa Rosa Marine Co. organized with \$30,000 capital to establish shipbuilding plant; especially construct boats of schooner type; G. C. Murphy, Pres.; R. S. Quinn, V.-P.; J. E. Turner, Secy.-Treas.

Fla., Pensacola.—Bruce Dry Dock Co. advises Manufacturers Record: Dredging and filling site for dry dock and repair yard; making 15 acres with trackage to all railroads entering Pensacola; dredging pits for 3 dry docks and 19-ft. channel in bay to docks; have ready for use; when dredging is completed, one unit of 200-ton floating dry dock; preparing plans and specifications to build 450-ton pontoon floating dry dock; erecting necessary woodworking and steel working plants near docks.

Fla., Jacksonville.—Hillyer-Sperring-Dunn Co. advises Manufacturers Record: Acquired additional water frontage giving total of 40 acres with 1450 ft. water front; laying out land to build berths for 12 additional ships; ordered traveling cranes, derricks, trackage, etc.; building additional machine shop, installing galvanizing plant and equipment to manufacture chains and anchors.

Fla., Milton.—Bagdad Shipbuilding Co. organized to establish shipyards; John A.

Merritt, Pres.; R. H. Turner, Secy.; E. R. Malone, Treas.; all of Pensacola, Fla.; F. W. Stevens, V.-P., Bagdad, Fla.

Fla., Millville.—Gulf Shipbuilding Co. organized to establish shipyards; H. H. Boyer, Pres.; C. W. Lamar, V.-P.; both of Pensacola, Fla.; A. A. Payne, Secy.-Treas., Panama City, Fla.

Fla., St. Petersburg.—R. R. West, John D. Harris and others will organize \$100,000 company to build shipyards; invest \$40,000 for initial equipment; construct 400 to 2000-ton capacity schooners for coastwise trade; leased waterfront site.

Fla., Gardenville.—W. D. Davis will establish shipbuilding plant; has site on Hillsborough Bay, near Gardenville and Tampa.

Ga., Savannah.—National Ship Building & Dry Dock Co. chartered with \$300,000 capital by E. D. Flynn, John A. Calhoun, T. M. Cunningham, Jr., R. S. Salas and H. Hodgson.

La., Berwick.—Janse Bros., Boomer, Crane & Howe of Berwick and Morgan City, La., will establish shipbuilding plant; plans 12 shipways; invest more than \$300,000 for land, ways, machinery, tools, etc.; leased 40-acre site on Berwick Bay; utilize 2000 water frontage for yards; purchased plant construction materials.

La., Morgan City.—Union Bridge & Construction Co., L. S. Stuart, Pres., Kansas City, Mo., will establish shipbuilding plant; leased site on Berwick Bay; construct drydock; build vessels from Government specifications; 3000-ton ships 280 ft. long and 47 ft. wide by 26 ft. deep; Louisiana long-leaf pine hulls and superstructures.

Md., Baltimore.—Baltimore Dry Docks & Ship Building Co., Holden A. Evans, Pres., foot of Cross St., will build additional shipyards lately noted as under consideration, Day & Zimmerman, Philadelphia, being named as the engineers; now reported new facilities will include boiler plant. (Lately noted planning additional shipbuilding facilities costing \$2,000,000; immediate plans provide for 4 or 5 shipbuilding berths for vessels up to 600 ft. long and of 15,000 gross tonnage; future plans contemplate drydock facilities, including floating drydock; also contemplate constructing railroad tunnel under Fort Ave. to connect present plant with new yards.)

Tex., Beaumont.—J. N. McCammon and others of Pine Bluff, Ark., and Kansas City capitalists will organize company to build shipyards; 7-acre site, with 850-ft. front, on east side of Neches River, opposite Beaumont; invest \$75,000 for filling, grading and building plant; ordered machinery and other equipment; construct 2 marine ways.

Tex., Beaumont.—White & Block, Wm. White, Mgr., leased waterfront property for additional shipyards' facilities; plan to construct roller marine ways costing \$8000 to \$10,000, erect several buildings, purchased machinery and other equipment, etc., all to cost probably \$20,000 or more; new ways for vessels 250 ft. long.

Tex., Houston.—Horton & Horton will establish shipbuilding plant on turning basin; leased waterfront site, including 2 municipal ships; provide facilities for constructing wooden ships.

Tex., Orange.—Orange Maritime Corp. has plans to construct first building, 370x70 ft. and of frame; this structure for storage of machinery, tools, supplies, etc.; will erect other buildings for machine shop, etc.; purchased considerable shipyard machinery. (Lately noted to build permanent plant for constructing vessels.)

TELEPHONE SYSTEMS

Ala., Myrtlewood.—Marengo County Telephone Co., capital \$200, incptd. by F. C. Carter and others.

D. C., Washington.—Chesapeake & Potomac Telephone Co. plans to expend \$750,000 for improvements to include: \$225,000 exchange to be installed in main exchange building; \$80,000 to improve main building to accommodate new exchange; \$30,000 for power plant at main exchange; \$35,000 for additional toll boards; \$75,000 for additions to switchboards at Lincoln, Columbia and Cleveland exchanges; \$20,000 for alteration to Cleveland exchange building; \$150,000 for cables and other outside plants; \$100,000 for private branch exchange switchboards, stations and accompanying equipment.

Ga., Griffin.—Southern Bell Telephone & Telegraph Co., Atlanta, Ga., plans improvements costing \$60,000; having plans prepared for exchange; 2 stories; 41x60 ft.; pressed brick; tile, stone and terra-cotta trimmings; cost \$12,000; contain offices, exchange and switchboards; install common battery, central energy system; also construct under-

ground conduit system; cost of improvements, in addition to exchange building, \$45,000.

Tex., Rosenberg.—Fort Bend Telephone Co., capital \$20,000, incptd. by C. H. Waddell, J. H. Waddell and G. F. Waddell.

Va., Christiansburg.—Ellett Mutual Telephone Co., capital \$1000, incptd.; J. B. Taylor, Pres.; L. B. Lester, Secy.-Treas.

TEXTILE MILLS

Ga., Augusta.—Press Cloth.—Southern Press Cloth Mfg. Co. let contract to T. O. Brown, Augusta, for erection 2-story 300x50-ft. mill—construction addition with tin or asbestos roof and floors of 4-in. pine and 1-in. maple, costing \$26,000; Goodrich & Clarke, Archts., Augusta; install machinery for spinning and weaving. (Lately noted having plans prepared for additional mill, etc.)

Ga., Gainesville.—Print Cloth, etc.—Gainesville Cotton Mills (Pacolet Mfg. Co., Spartanburg, S. C.) will install electric drive; engineers preparing specifications for installations; 5 to 150 H. P. electric motors; electricity from Georgia Railway & Power Co. (See S. C. Pacolet.)

Ky., Covington.—Cordage.—Eagle Cordage Co. contemplates equipping plant for electrical operation; several small motors.

N. C., Maiden.—Woolen Goods.—Yadkin Woolen Mills, capital \$50,000, incptd. by W. B. Murr and E. M. Spratt, Jr., of Maiden and J. B. Haglan, Patterson, N. C.

N. C., Roanoke Rapids.—Cotton Yarn.—Roanoke Mills Co. let contract to T. C. Thompson Bros., Charlotte, N. C., for construction No. 2 mill and village, including 70 cottages; 542x158-ft. mill of concrete construction with fenestra sash, costing \$100,000. (Lately noted to invest \$630,000 for additions; ordered all machinery, costing \$530,000; installation to include 23,184 spindles, 900 H. P. electric drive, etc., for daily production 10,000 lbs. cotton yarn; later install 700 wide looms; electricity from Roanoke Rapids Power Co.'s transmission system.)

N. C., Spray.—Woolen Goods.—Carolina Cotton & Woolen Mills Co. will build addition to woolen mill; 200x175 ft.; install additional looms.

N. C., Thomasville.—Hosiery.—Southern Finishing Mills will install knitting machinery with electric-power drive for daily capacity 2000 dozen pairs hose. (See Machinery Wanted—Dyeing Machinery; Knitting Mill Equipment.)

Okla., Roff.—Bleached Products.—Cottonseed Products Co. advises Manufacturers Record: Intend to build blechery; have not determine details; when available will state particulars. Arthur D. Little, Inc., Engr., Boston, Mass.

S. C., Gaffney.—Knit Goods.—J. H. Stringer of Newark, N. J., is reported as considering establishment of knitting mill.

S. C., Pacolet.—Print Cloth, etc.—Pacolet Mfg. Co., central office at Spartanburg, will install electric drive for Pacolet Mills and Gainesville (Ga.) Cotton Mills; install several hundred electric motors ranging from 5 to 150 H. P.; engineers now preparing specifications for these installations; obtain electricity from Georgia Ry. & Power Co., Atlanta, Ga., which will construct 38,000-volt transmission system from Dunlap plant on Chattahoochee River; furnish 6000 H. P. for these two mills; \$300,000 expenditure by Georgia and Pacolet corporations.

Tex., Belton.—Yarn.—Belton Yarn Mills increased capital from \$25,000 to \$50,000.

WATER-WORKS

Ala., Talladega.—City, A. G. Weldon, City Clerk, advises Manufacturers Record: New plant capacity to be 1,000,000 gals. daily; probable cost, \$145,000; not yet ready for bids on other than plans. (Well construction and bids lately noted.)

Ala., Lineville.—City engaged J. B. McCrary Co., Atlanta, Ga., as engineer to design water-works; cost \$20,000 to \$25,000.

Okla., Billings.—City invites bids until August 1 to construct water-works, electric-light plant and sewer system; cost \$50,000; Mackintosh-Walton Engineering Co., Engr., 1023 State National Bank Bldg., Oklahoma City; L. Panten, Pres. Board of Public Works. (Lately noted to have voted \$10,000 bonds to construct water system.)

Okla., Enid.—City contemplates improving water-works. Address The Mayor.

Okla., Picher.—Central Ice & Water Co., capital \$15,000, incptd. by John Comba of Picher, Q. O. Crane of Dearing, Kans., and Mose Elliott of Webb City, Mo.

Okla., Rush Springs.—City votes June 1 on

\$30,000 bonds to construct water-works. Address The Mayor.

Tenn., Chattanooga.—City Water Co. increased capital from \$1,500,000 to \$3,741,000. (Lately noted to extend water mains to Chickamauga National Park, estimated to cost \$150,000.)

Tenn., Paris.—City will install filtering plant; will let construction contract; W. J. Holman, Engr. (Lately noted voting \$40,000 bonds for filtration plant and school; \$7500 to \$10,000 for the school building.)

Tex., Elctra.—City let contract to M. Griffin O'Neil & Sons, 1505 Praetorian Bldg., Dallas, Tex., to design and construct on percentage basis certain extensions and improvements to water-works, mainly building dam for reservoir; construct temporary dam, at present; ultimately build reservoir of 250,000,000-gals. capacity. (Lately noted.)

Tex., Rosebud.—City will construct dam 1000 ft. long, 30-ft. crown, average height 16.15 ft., for 92,000,000-gal. reservoir; bids until June 5. Address City Secy. (See Machinery Wanted—Dam Construction.)

WOODWORKING PLANTS

Ala., Mobile.—Boxes, Shooks, etc.—Mobile Coal Co., Paul A. Danner, V.-P., Supt. of Construction, will restore sawmill plant to be operated by May Lumber Co.; manufacture boxes, shooks and box veneer; supply canneries.

Ark., Fayetteville.—Handles.—Wm. Haas & Son, Pine Bluff, will establish handle factory.

Miss., Columbia.—Veneer, etc.—Price Veneer & Lumber Co. organized; F. T. B. Price, Pres.; T. F. Price, Secy.-Mgr.; will occupy mill-construction building on 1-acre site; cost \$25,000; C. P. Craft, Ellisville, Miss., Archt. and Contr. (Lately—incorrectly, under "Columbus"—noted incptd.; also, in March, stated to install machinery with daily capacity 15,000 to 25,000 ft. gum logs in box shooks and to erect 190x250-ft. building.)

Mo., St. Louis.—Cooperage.—Schaperkötter Cooperage Co. increased capital from \$25,000 to \$50,000.

N. C., Rocky Mount.—Building Materials.—Rocky Mount Woodworking Co., capital \$15,000, incptd. by J. W. and Mrs. Estelle Matthis, G. W. and May Fountain.

Tenn., Lewiston.—Cedar Shats, etc.—Holston & Lidgett Co., capital \$100,000, incptd. by Paul Fitzpatrick, R. C. Armstrong, W. W. Braden and others.

Tex., Houston.—Boxes.—Republic Box Co. increased capital from \$25,000 to \$50,000.

Tex., Texarkana.—Caskets.—Texarkana Casket Co. increased capital from \$30,000 to \$150,000.

FIRE DAMAGE

Ala., Orville.—R. B. Hare's blacksmith shop; Dunaway Mercantile Co.'s building; J. H. Reid's 3 buildings; E. M. Marshall & Sons' warehouse; loss \$10,000.

Ala., Troy.—Residences owned by J. F. Morgan and W. B. Folmar.

Ark., Walnut Ridge.—Frank Sparks' residence.

Fla., Kendall.—Cowart & Hinely Bros.' sawmill; loss on machinery and material \$3000.

Fla., Pensacola.—A. E. Turner's turpentine plant; loss \$20,000 to \$25,000.

Fla., Tampa.—Royal Palm Soap Co.'s plant. Ga., Atlanta.—Atlanta Machine Works at 228 E. Hunter St.; loss on building \$3000.

Ga., Atlanta.—Dwellings of Claude L. Ashley, R. M. Callaway, R. L. Cooney, Harry L. Dix, Harry L. Bradshaw, W. D. Brady, D. L. Hollis, W. D. Williamson, H. C. Crosthwait, W. J. Lynch, J. W. Stevens, C. L. Pettigrew; Westminster Presbyterian Church; Jackson Hill Baptist Church; Grace Methodist Church (address respective Pastors); Farlinger Apartment; buildings of Norris Candy Co., J. K. Orr Shoe Co., Trio Steam Laundry; residences of Dr. E. C. Murphy, Chas. T. Hopkins, Thos. Peters, Mrs. Earle E. Grier, H. C. Bailey; Wheat Street Baptist Church, Rev. Jas. Bryant, Pastor, and other buildings. (Lately noted in part.)

Ga., Cornelia.—I. C. Wade's residence.

Ga., De Soto.—E. S. Ferguson's residence; loss \$3500.

Ga., Sumter.—Henry J. Webb's residence; loss \$5000.

Ga., Tocon.—Edwards & Co.'s store; loss \$12,000.

Ga., Washington.—Toombs McLendon's building; loss \$15,000; T. J. Hartwell & Bros.' storage warehouse; J. M. Wood's livery stable; total loss \$25,000.

Ky., Georgetown.—Residence of Mrs. Kate Baker and Mrs. Alexander Robinson; Lila Pullen's studio.

Ky., Lexington.—Merrick Lodge Bldg., loss \$50,000; Smith-Watkins-Darnaby Co.'s building, owned by McClelland Estate, loss \$15,000; Second Presbyterian Church (address The Pastor), loss \$50,000; J. S. Poer's paint shop, loss \$10,000; Barkley Bros.' harness shop, loss \$17,000; Clay Heirs' several buildings, loss \$20,000; C. B. Rowland's store, loss \$7000; Mrs. W. D. Bryant's 2 buildings, loss \$15,000; W. C. Heacox's buildings, loss \$12,000; A. F. Wheeler's warehouse; Eagles' Hall, owned by A. B. Jones, loss \$6000; Porter & Jackson's livery and undertaking establishment, loss \$5000. (Lately noted in part.)

Ky., Louisville.—Louisville Tobacco Warehouse Co.'s warehouse; loss \$50,000; J. C. Bright, Mgr.

La., Bowie.—Bowie Lumber Co.'s sawmill, planer and drying sheds.

Miss., Bude.—Dixie Theater; J. A. Shaw's building; loss \$5000.

Miss., East Side.—E. B. Dunten's residence; loss several thousand dollars.

Miss., Waynesboro.—W. A. Harrison's dwelling.

Mo., Kansas City.—Tarkio Molasses Feed Co.'s plant at Woodland and Guinote Aves.; loss on building \$20,000; offices at 561 Live Stock Exchange Bldg.

Mo., St. Clair.—St. Clair Times; Farmers' and Merchants' Bank; postoffice; John Howard's meat market; C. F. Neihersers' building; R. King's barber shop; Masonic Hall; Fred. Angeere's store; Panhorst Bros.' store; Buren Duckworth's residence; loss \$40,000.

N. C., Oakboro.—J. B. Arant's barber shop and dwelling; Mrs. Mary J. Hartsell's millinery store and postoffice; J. S. Helms General Store; Oakboro Furniture Warehouse; C. C. Furr Livery Stable.

N. C., Salisbury.—C. W. Keith's 2 dwellings; E. J. Melton's residence; John C. Trexler's residence; J. W. Link's barn; loss several thousand dollars.

N. C., Statesville.—R. P. Allison's store, owned by Mrs. W. M. Cooper.

N. C., Wannamash.—Wynnwood Lumber Co.'s sawmill; loss \$60,000.

Okla., Featherston.—Featherston Gln Co.'s plant; loss \$5000.

S. C., Newberry.—Newberry Cotton Mills warehouse.

S. C., Paxville.—Arthur Cutter's store.

S. C., Sumter.—Penn-Sumter Lumber Co.'s boiler-room; loss \$5000.

Tenn., Chattanooga.—J. H. Wann & Son's garage and stock; loss \$10,000.

Tenn., Hermitage.—Residence owned by Mrs. Bettie M. Donelson, Nashville.

Tenn., Middlesboro.—R. S. Oaks' residence; loss several thousand dollars.

Tenn., Memphis.—George E. Witt's building, occupied by Star Buck Co.; loss \$5000; Rosenbaum & Mendel's store building.

Tenn., Memphis.—Mount Zion Baptist Church, Rev. M. H. Howe, Pastor; loss \$11,000.

Tenn., Memphis.—Ben Spears Shoe Co.'s store; Frank Hill's building; loss \$5000.

Tenn., Nashville.—H. H. Phelps' residence; loss \$8000 to \$7000.

Tenn., Aetna.—G. H. Grimes' dwelling near Aetna.

Tex., Bono.—W. M. Hickman's residence; loss \$5000.

Tex., Del Rio.—St. Guadalupe Church's parochial hall; loss \$3000. Address The Pastor.

Tex., Fort Worth.—T. J. Cartwright's store at Riverside; loss \$6000.

Tex., Round Rock.—Blacklock & Bradley's barber shop; B. J. Mayfield's restaurant; W. J. Walsh's building.

Tex., Temple.—William Taylor's barn; loss \$10,000.

Tex., Riverside.—T. J. Cartwright's store building; loss \$8000.

Va., Norfolk.—Norfolk Veneer Co.'s plant.

Va., Williamsburg.—Henri Mouquin's sawmill.

W. Va., Adamston.—W. C. Poling's residence; loss \$3500.

ing, plumbing, wiring, elevator and equipment; plans and specifications at office architects. (Previously noted.)

Okla., Tulsa.—A. F. & A. M. have plans by Puckey & Jenkins, Chicago, for Masonic Temple; cost \$250,000. (Previously noted.)

Tenn., Knoxville.—Y. W. C. A., W. J. Savage, Chrmn., selected Barber & McMurray, Knoxville, to prepare plans for proposed structure. (Lately noted.)

Tex., Clarendon.—Y. W. C. A., C. W. Taylor, Secy., receives bids until June 5 to erect building; brick; plans at office secretary. (Previously noted.)

BANK AND OFFICE

Md., Baltimore.—Park Bank, Webster Bell, Pres., 110 W. Lexington St., purchased Consolidated Gas & Electric Co.'s building at Liberty and Lexington Sts., and will remodel; lower floor for bank; upper, offices.

Mo., St. Louis.—Vaudeville Theater Co., 705 Olive St., has plans for altering office and theater building. (See Theaters.)

N. C., Newbern.—Newbern Banking & Trust Co., O. W. Lane, Cash., contemplates improvements to bank building, including installation of fixtures, possibly burglar-proof vault, etc.

S. C., Chester.—National Exchange Bank is considering rebuilding or remodeling building.

Tenn., Maryville.—Dr. R. W. Wells has plans for store, office and apartment building. (See Stores.)

Tex., Dallas.—Interstate Amusement Co. is having plans prepared for theater and office building. (See Theaters.)

Tex., El Paso.—Powers & Truesdale have plans by Braunton & Leibert, El Paso, for office building at Oregon & San Francisco Sts.; 40x120 ft.; 16 stories; steel and concrete; Barrett roof; concrete floors; steam heat; 3-way prism vault lights; high-speed electric elevators; cost \$300,000. (Lately noted.)

Va., Petersburg.—National Bank, W. L. Venable, Cashier, has plans by Ferguson, Calrow & Wrenn, Virginia Bank Bldg., Norfolk, for 2-story building; 40x100 ft.; cost \$60,000.

CHURCHES

Ark., Crawfordville.—Methodist Church has plans by John P. Almand, Little Rock, for building; 30x60 ft.; brick; vulcanite, slate and gravel roof; wood floors; cost \$6000; warm-air heat, \$505; bids opened June 1. Address C. L. Campbell, Chrmn. Building Com., Crawfordville. (Lately noted.)

Ark., Fort Smith.—First M. E. Church South is having plans prepared by John Galsford, Memphis, Tenn., for building; about 90x130 ft.; classic style; cost \$100,000; construction begins about July 1.

Ark., Lewisville.—Christian Church will erect building. Address The Pastor.

Fla., Jacksonville.—Church of the Good Shepherd will erect parish-house; 4 stories; 60x100 ft.; probably mild construction; tile decking for roof; steam heat; city lighting; cost \$30,000; J. W. C. Arbusier, Cleveland, O., and Mellen C. Greeley, Jacksonville, Archts., contractors estimating are R. V. Labarre, Bisbee Bldg.; F. W. Long & Co., 434 Bay St.; W. P. Richardson & Co., Duval Bldg.; O. P. Woodcock, 403 Main St.; Hal-sena, Buckland & Fletcher Co., 403 Main St., all of Jacksonville; will let contract June 20. (Previously noted.)

Fla., Miami.—Beni David Congregation plans to erect synagogue; D. Afremow, Isidore Cohen and others are interested.

Ga., Atlanta.—Grace Methodist Church, Rev. Luke G. Johnson, Pastor, will erect building to replace structure damaged by fire.

Ga., Atlanta.—Jackson Hill Baptist Church, Rev. Harold Major, Pastor, will erect building to replace structure damaged by fire.

Ga., Atlanta.—Wheat Street Baptist Church, Rev. James Bryant, Pastor, will erect building to replace structure damaged by fire.

Ga., Atlanta.—Westminster Presbyterian Church, Dr. A. A. Little, Pastor, will rebuild structure to replace building noted damaged by fire.

Ga., Bainbridge.—Baptist Church has plans by J. E. Greene, Birmingham, Ala., for building; 80x80 ft.; ordinary construction; slate roof; pine floors; warm-air heat; electric lights; cost \$18,000. Address S. T. Carter. (Lately noted.)

Ga., Dublin.—Presbyterian Church has plans by Chas. H. Hopson, Atlanta, for building; slate roof; furnace heat. Address Rev. C. M. Chumbley, Dublin.

Ga., Waycross.—Central Baptist Tabernacle will expend \$4000 to erect Sunday-school, several stories, and complete church building. Address The Pastor.

Ky., Winchester.—Methodist Episcopal Church South, Rev. Geo. W. Banks, Pastor, has plans by John Galsford, Memphis, Tenn., for church and Sunday-school; 124x80 ft.; stone; tile roof; steam heat; electric lights; cost \$50,000; bids opened June 15. (Lately noted.)

N. C., Asheville.—First Congregational Church, Rev. J. Brainerd Thrall, Pastor, has plans by W. H. Lord, Asheville, for \$15,000 structure; 50x50 ft.; 2 stories; sub-basement for heating plant; brick veneer; probably electric lights; construction under supervision of L. L. Merchant, Asheville. (Previously noted.)

N. C., Lumberton.—Presbyterian Church has plans by J. E. Greene, Birmingham, Ala., for building; 65x85 ft.; ordinary construction; Barrett specification roof; pine floors; warm-air heat; electric lights; cost \$14,000. Address Dr. G. E. Moorehouse, Chrmn. Building Com. (Lately noted.)

S. C., Anderson.—Congregational Church plans to erect building; Ward Thompson, Chrmn. Com.

Tenn., Bristol.—Mary Street Methodist Church, Rev. H. B. Vaught, Pastor, is having plans prepared by C. B. Kearfott, Bristol, for building.

Tex., Tyler.—Christ Church, Rev. C. E. Snowden, Pastor, has plans by Fred. Gordon Shaw, P. O. Box 213, Tyler, for lately-noted building; 38x90 ft.; brick, tile and plaster; composition shingle roof; frame, tile and concrete floor; low-pressure gravity steam heat; cost \$25,000; bids opened May 31. Address The Pastor. (See Machinery Wanted—Building Materials—Tile; Lighting Fixtures; Seating; Altar; Heating.)

Va., Roanoke.—Belmont Methodist Episcopal Church, J. H. Balthis, Pastor, has plans by H. L. Cain, Merchants Bank Bldg., Richmond, for school and church building; 1, 2 and 3 stories; cost \$50,000. (Previously noted.)

Va., Suffolk.—Christian Church has plans by B. F. Mitchell, 500 Seaboard Bank Bldg., Norfolk, for building near Suffolk; brick; 44x88 ft.; cost \$12,000 to \$15,000.

CITY AND COUNTY

Ala., Mobile.—Asylum.—County Commrs. will erect asylum at poor farm; J. O. Bolton, Chrmn. Com.

Fla., Orlando.—Municipal.—City defeated \$30,000 bond issue to erect municipal building. (Previously noted.)

Miss., Laurel.—Fair.—Jones County Commissioners will erect building at South Mississippi Fair.

Miss., Wiggins.—Jail.—Stone County receives bids until June 20 to erect courthouse and jail. (See Courthouses.)

N. C., Greensboro.—Jail.—Gulfport County has plans for courthouse and jail. (See Courthouses.)

Okla., Lehigh.—City Hall.—City, Fred. Westermann, Mayor, receives bids until June 7 to erect 2-story city hall; plans and specifications at office W. L. Steelman, City Clerk. (Previously noted.)

Okla., Tulsa.—City Hall.—City, Frank Newkirk, Auditor, opened bids to erect city hall; Universal Construction Co., low bidder at \$108,000; plans by Rush, Endicott & Rush, 226 Unity Bldg., Tulsa, call for 4 stories; 60x120 ft.; fireproof; asbestos roof; vacuum heat; electric lights generated in building; electric elevators, \$6000. (Lately noted.)

Tenn., Nashville.—Engine House.—City has plans by Jas. H. Yeaman, City Hall, Nashville, for engine-house at Haymarket Sq.; 30x120 ft.; brick, stone and concrete; composition roof; concrete floors; steam heat; city electric lights; concrete sidewalks; cost \$20,000; plans ready for bids in 30 days. (Lately noted.)

Tenn., Nashville.—Pavilion.—City has plans by Donald W. Southgate, Arcade, Nashville, for pavilion in East Park; 60x25 ft.; 20 Corinthian columns of stone; reinforced concrete floor; foundation wall and parapet faced with cut stone; bids opened May 30.

Tex., Orange.—Warehouse.—City will erect warehouse to cost \$25,000. Address The Mayor. (See Warehouses.)

COURTHOUSES

Miss., Wiggins.—Stone County Commrs. receive bids until June 20 to erect courthouse and jail; 55x110 ft. and 30x55 ft.; brick; tiling and flat top roof; wood floors; cost \$25,000; heating, about \$750; plans and specifications at office Xavier A. Kramer,

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

D. C., Washington.—D. H. Roland Drury has plans by A. E. Landvoigt, 1410 H. St. N. W., Washington, for apartment-house on M. Pleasant St.; 40x120 ft.; fireproof; slag roof; vapor heat; electric lights; cement sidewalks; cost \$50,000; bids opened June 10. Address architect. (Lately noted.)

Fla., Miami.—John Quinn, Miami, and Robert Reed, Bedford, Ind., will erect store and apartment building. (See Stores.)

Fla., Miami.—James B. Johnson is having plans prepared by E. A. Nolan, Miami, for apartment-house; 3 stories; concrete and hollow tile; construction to permit 3 additional stories later; cost \$33,000. (Lately noted.)

Fla., Miami.—J. W. Byrd will erect apartment-house; 3 stories; concrete and hollow tile.

Fla., St. Petersburg.—Mrs. H. A. Murphy has plans by Ferdon & Feltham, St. Petersburg, for 18-room apartment-house; 2 stories; 6 apartments; cost \$7500.

Fla., St. Petersburg.—Rev. C. E. Harrington, Pastor of Congregational Church, will erect apartment-house; wood; 2 stories; one 5-room and ten 2-room apartments; cost \$10,000; J. W. Colburn, St. Petersburg, in charge of construction.

Ga., Atlanta.—H. M. Houser will erect apartment-house at 236 E. Fifth St.; 2 stories; frame; cost \$16,500.

Ky., Winchester.—Mrs. J. S. Hutsell will erect apartment-house on Hathaway Court; 4 apartments; 37x60 ft.; brick veneer; hardwood floors; cost \$7000; J. W. Wheeler, Archt. and Contr., Winchester.

Md., Baltimore.—Wm. A. Danner, Equitable Bldg., has plans by John K. Stack, 12 E. Lexington St., Baltimore, for converting dwelling at Chase and Calvert Sts. into apartment-house; masonry; tin roof; wood floors; 2 dumb waiters; cost \$6000 to \$7000; steam heat (gas fired), \$1000; electric lights, \$500; contractors estimating are: B. F. Bennett Bldg. Co., 123 S. Howard St.; J. J. Walsh & Son, 1533 Maryland Ave.; John J. Moylan, 538 N. Calvert St.; all of Baltimore. (Lately noted.)

Mo., Kansas City.—R. W. Van Trump will erect apartment-house at 1017 Van Trump Court; 40x40 ft.; brick; gravel roof; oak floors; cost \$6000; heating, \$250; lighting, \$200. (Lately noted.)

Mo., Kansas City.—McCanles Realty Co. will erect 3-story brick flat; cost \$15,000.

Mo., St. Louis.—W. O. Thomas has plans by Oscar F. Kresse, Jr., for apartment-house; fireproof; 42 apartments with bath, in-a-door beds and kitchenette; push-button elevator; vacuum and refrigerator system; cost \$125,000.

Mo., St. Louis.—Vincent A. Chinberg will erect five 4-family flats; 4 rooms, sun parlor, sleeping porch, bath; hardwood floors.

Tenn., Maryville.—Dr. R. W. Wells has plans for apartment, store and office building. (See Stores.)

Tex., Houston.—E. Houck has plans by A. Delisle, Houston, for apartment-house at 1620 Walker Ave.; 46x35 ft.; brick and hollow tile; gravel roof; wood floors; electric wiring; cost \$16,000; hot-air heat, \$500; construction superintended by owner. (Lately noted.)

ASSOCIATION AND FRATERNAL

Ark., Argenta.—Argenta Lodge No. 1004, B. P. O. E., will erect 3-story fireproof lodge building; cost \$65,000; Douglas Beard, Exalted Ruler.

Ky., Lexington.—A. B. Jones has plans by J. V. Moore, Lexington, to erect lodge store building lately noted damaged by fire; 24½x86 ft.; brick, stone and wood; gravel and tar roof; hardwood and plain floors; cost \$7000; steam heat, about \$1500; gas and electric lights, \$450; bids opened about June 1.

Mo., St. Louis.—Alhambra Grotto will erect clubhouse at Jefferson Barracks for members of A. F. & A. M.; 60x200 ft.

Okla., Oklahoma City.—Y. W. C. A. receives bids through Hawk & Parr, Archts., Security Bldg., Oklahoma City, until June 4 to erect building; 5 or 6 stories; 100x130 ft.; swimming pool; gymnasium; reinforced concrete; pitch and gravel roof; concrete floors; steam heat; electric passenger elevator; cost \$160,000; separate bids for heat-

Arch., Magnolia, Miss., and Chancery Clerk, Wiggins. (Previously noted.)

N. C., Greensboro.—Guilford County has plans by Harry Barton, McAdoo Bldg., Greensboro, for courthouse and jail; approximately 74x170 ft.; exterior granite, limestone and terra cotta; reinforced concrete construction; Barrett specification roof; steam or vapor heat; jail on upper story; estimated cost \$300,000. (Previously noted.)

S. C., Saluda.—Saluda County has plans by C. Gadsden Sayre, Anderson, S. C., for courthouse, for which \$50,000 bonds were voted; semi-fireproof; press brick and stone; will soon let contract. (Lately noted.)

DWELLINGS

D. C., Washington.—H. A. Kite, 1333 G St. N. W., has plans by Geo. T. Santmyers, 921½ New York Ave. N. W., Washington, for 6 frame dwellings at 1063-15 Evans St. N. E.; cost \$24,000.

D. C., Washington.—Chas. E. Wire, 1413 H St. N. W., will erect 2 frame dwellings at 805-07 Rittenhouse St. N. W.; cost \$3500 each.

D. C., Washington.—Mrs. L. F. Day has plans by Clarke Wagman, 1211-A Connecticut Ave. N. W., Washington, for residence at Massachusetts Ave. and 30th St.; American renaissance.

Fla., Daytona.—Jas. B. Moore, 146 Ridge-wood Ave., states he is not erecting any buildings. (Lately noted to erect 2 bungalows.)

Fla., Titusville.—Augustus Nelson will erect residence; 7 rooms; frame.

Ga., Atlanta.—H. W. Nicholes will erect bungalow.

Ga., Atlanta.—F. J. Cooledge will erect 4 2-story 6-room frame dwellings at 262-74 E. Cain St. to replace structure lately damaged by fire; cost \$4800.

Ga., Augusta.—Rufus H. Brown is having plans prepared by Blackley & Irvin, Augusta, for residence.

Ga., Augusta.—D. F. Kirkland receives bids to erect residence; Blackley & Irvin, Architects, Augusta.

Ga., Augusta.—E. A. Frank is having plans prepared by J. B. Story, 212 Montgomery Bldg., Augusta, for frame bungalow; composition shingle roof; furnace heat; brick mantel; cost \$4500.

Ga., Macon.—W. E. Hardell will erect residence; 6 rooms; hollow tile; cypress shingle roof; hot-water heat; cost \$4000; Nisbet & Dunwoody, Architects, Grand Bldg., Macon. (Lately noted.)

Ga., Pembroke.—S. B. Shuman and Zack Shuman contemplate erecting 3 bungalows in addition to 3 under construction.

Ky., Millstone.—Southeast Coal Co., operating at Sece and LaViers, Ky., will erect 100 dwellings for miners.

La., New Orleans.—Jacob Levy will erect bungalow.

Md., Baltimore.—T. E. Biddison, 3312 Elgin Ave., has plans by J. F. Neiker, 209 Professional Bldg., Baltimore, for ten 2-story brick dwellings on W. Pratt St.; 15x50 ft.; cost \$12,000.

Md., Towson.—Julian White Ridgeley is having plans prepared by Thos. B. Owings, 347 N. Charles St., Baltimore, for residence; stone; 10x50 ft.

Mo., Kansas City.—W. W. Meriwether will erect 2½-story stucco-venerer dwelling; cost \$18,000.

Mo., Kansas City.—Fletcher Campbell will erect 2 frame dwellings; cost \$4000.

Mo., Kansas City.—A. J. King Realty Co. will erect two 2-story stone-venerer dwellings; cost \$14,000.

Mo., Kansas City.—Geo. C. Hill will erect 2-story brick dwelling 900 W. 61st St.; also 3 frame dwellings 801 and 638 Huntington Rd. and 6024 Central St.; cost \$25,000.

Mo., University City.—Geo. F. Bergfeld Investment & Construction Co., 610 Chestnut St., Kansas City, Mo., will erect 4 residences on Waterman Ave.; brick, stone and tile; tile roof; wood floors; hot-water heat; electric lights; granite sidewalks; cost \$12,500 each; T. C. Lee, Archt., 9th and Olive Sts., Kansas City. Address owner. (Lately noted.)

N. C., Lenoirville.—Carolina Cotton & Woolen Mills Co., Spray, N. C., will erect residences for employees.

Okla., Oklahoma City.—C. E. Frye will erect four 1-story frame dwellings; cost \$12,000.

Okla., Oklahoma City.—H. D. Garrison will erect 2-story frame dwelling; cost \$4000.

Okla., Oklahoma City.—Jacob A. Mercer will erect residence; 2 stories; brick veneer; cost \$7000.

Okla., Tulsa.—Cosden & Co. will erect 24 one-story frame, 6 two-story frame and repair 15 one-story frame residences; cost \$85,500.

S. C., Charleston.—McCady Bros. & Cheves will erect \$6000 residence on Logan St.

S. C., Charleston.—M. A. St. Amand will erect \$6000 dwelling.

S. C., Sumner.—Dr. R. L. Cashburn is having plans prepared by McGee & Lester, Memphis, Tenn., for residence; tile; composition shingle roof; wood floors; hot-water heat; electric lights; cost \$10,000.

Tex., Brenham.—H. F. Hohlt will not erect residence as lately noted.

Tex., El Paso.—J. M. Crawford will erect bungalow; cost \$3000.

Tex., El Paso.—Splitter Building & Realty Co. will erect 3 bungalows; one, 6 rooms; two, 5 rooms; cost \$3800 each; will also erect 6-room bungalow for Mrs. A. M. Holland; cost \$6000.

Tex., Fort Worth.—Mrs. M. Batten will erect 2 frame residences; John J. Pollard, Archt., Fort Worth National Bank Bldg.; bids opened May 31.

Va., Holland.—L. J. Daughtrey has plans by Wm. Newton Diehl, Norfolk, for residence; 2 stories; brick; cost \$3000.

Va., Norfolk.—D. N. Godwin will erect two 2-story frame dwellings; cost \$4000.

Va., Norfolk.—H. L. Simpson has plans by H. W. Simpson, Norfolk, for residence; colonial style; 2 stories, basement and attic; tile porch at front and sides; brick; Indiana limestone trim; 55x61 ft.; 14 rooms and 2 baths; bids opened June 4.

W. Va., Mannington.—Dr. U. H. Deben-dorfer will erect 2-story stucco residence; 34x40 ft.; wants designs and plans.

GOVERNMENT AND STATE

Ark., Prescott.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., opened bids to erect post-office; Algernon Blair, Montgomery, Ala., submitted only bid \$47,300. (Previously noted.)

Fla., Pensacola.—Storehouse, etc.—Bureau Yards and Docks, Navy Department, F. R. Harris, Chief, Washington, D. C., opens bids June 13 to erect torpedo storehouse and 2 magazine buildings at Navy Aeronautic Station; concrete foundations and floor; hollow-tile walls, plastered outside; plastered hollow-tile partitions; steel roof trusses and columns; asbestos shingles on wood sheathing; drawings and specifications (2384) from Commandant of Naval Station named and from Bureau at Washington.

Ga., Atlanta.—Cantonment.—Quartermaster General's Dept. will develop military camp, construct cantonments, install water-works system with pumping station, filters and settling basin; sewer system, sewage-disposal plant, separate and complete fire department, lighting and transportation service, etc.; cost \$2,000,000; Col. I. W. Lipell, Washington, D. C., in general charge.

Md., Beltsville.—Barn.—Secretary of Dept. of Agriculture, Washington, D. C., receives bids until June 1 to construct brick and concrete barn at U. S. Experimental Farm; plans and specifications at office Property Clerk, Bureau of Animal Industry, Room 1, 710 E St. N. W., Washington.

S. C., Columbia.—Postoffice.—Treasury Department, Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., rejected bids to erect postoffice; plans call for 2 stories and basement; 180x170 ft.; fireproof; granite faced; composition roof; metal windows and doors; 3 main entrances 22x97 ft.; cast-iron lobby screen; colonnade and portico, 82x10 ft., with granite walls, floor and steps. (Lately noted.)

Tex., Fort Sam Houston.—Dormitory.—Constructing Quartermaster, Fort Sam Houston, receives bids until June 11 to erect Nurse Corps' dormitory, including heating, plumbing, lighting and electric fixtures.

Tex., Sabine Pass.—Quarantine Station.—State will erect quarantine station and dredge channel; cost \$65,000; Dr. W. B. Collins, State Health Officer, Austin.

Va., Cape Henry.—Weather Bureau.—Secretary of Agriculture, Washington, D. C., receives bids until June 7 to erect 3-story and cellar cement and brick building for Weather Bureau, U. S. Dept. of Agriculture.

Va., St. Juliens Creek.—Ammunition Building.—Bureau of Yards and Docks, Navy Department, F. R. Harris, Chief, Washington, D. C., opens bids June 4 to erect extension to Building No. 16, having concrete footings, brick walls, slate roofing over sheathing, wood-finish floor over concrete base; drawings and specifications (2393) from commandant of navy-yard, Norfolk, and office of Bureau, Washington.

HOSPITALS, SANITARIUMS, ETC.

Ga., Macon.—Hospital Commrs. have plans by Alexander Blair, Macon, for Scott Memorial cottage at Macon Hospital; cost \$5500.

Ky., Paducah.—City will erect contagious ward to City Hospital; probably brick; city lighting; heat from present plant; cost \$6000; architect not selected; F. N. Burns, Mayor.

Miss., Greenwood.—King's Daughters Hospital will erect \$40,000 structure.

Mo., St. Louis.—City will erect hospital for smallpox patients; also school building for 20 tubercular children. Address The Mayor.

S. C., Greenville.—Governors of City Hospital, Chas. F. Hard, Chrmn., selected Eugene C. Wachendorff, Atlanta, to prepare plans for hospital; fireproof; cost \$60,000; H. Olin Jones, Consulting Supervising Archt., Greenville. (Previously noted.)

Va., Richmond.—Memorial Hospital will erect annex to hospital for contagious diseases; 4 stories; cost \$60,000, exclusive of equipment. (Previously noted.)

HOTELS

Fla., Fort Lauderdale.—A. C. Price and J. Rice Scott, Architects, and Engrs., Bartow, Fla., are preparing plans for \$80,000 hotel.

Fla., Fort Myers.—Morningside Co. Incptd. by Harry E. Burt, Prest., Battle Creek, Mich.; Geo. W. Durham, V.-P., Fort Myers; Burritt Hamilton, Secy., Battle Creek; W. A. White, Treas.-Gen. Mgr., Fort Myers; will erect tourist hotel; Samuel Parsons & Co., Landscape Architects, 101 Park Ave., New York. Messrs. White and Dunham wire Manufacturers Record: Contemplate erecting about 300 rooms; authentic data as to erect size, etc., not ready for about 2 weeks.

Fla., Miami.—Hotel Plaza Co. has plans by A. E. Lewis, Miami, for hotel; 40x135 ft.; reinforced concrete; asphalt roof; reinforced concrete floors; steam heat; city electric lights; cement sidewalks; cost \$60,000; Otis electric elevators, \$3500; bids opened June 4. (Previously noted.)

Fla., Miami.—C. J. Martin, Prest., Georgia Lumber Co., has plans by Geo. L. Pfeiffer, Lemon City, Fla., for hotel and store building at 12th St. and Avenue G; 50x135 ft.; 10 stories; 7 stories to be erected at present; fireproof; concrete slab and asbestos roof; reinforced concrete floors; initial cost \$137,000; steam heat, about \$3300; electric alternating current (2 cars) elevators, \$4000. (Previously noted.)

Fla., St. Petersburg.—W. E. Allison will remodel and erect addition to Allison House; 3 stories; construct 36 baths; total of 60 rooms; cost \$14,000; Ferdon & Feltham, Architects, St. Petersburg.

Fla., West Palm Beach.—Judge Woodcock, Altoona, Pa., is reported to remodel Poinsettia Hotel.

Ky., Frankfort.—Capitol Hotel is having plans prepared by C. C. and E. A. Weber, Citizens' National Bank Bldg., Cincinnati, for addition to building. (Previously noted damaged by fire.)

Ky., Lexington.—Phoenix Hotel Co., John G. Cramer, Secy.-Treas., acquired office building and plans to replace with hotel; details not determined.

S. C., Greenville.—Alexandria Hotel will remodel building.

W. Va., Huntington.—Central Realty Co. will redecorate and refurnish hotel; also install private baths and equip 50 rooms with shower baths. (Previously noted.)

MISCELLANEOUS

Fla., Miami.—Amusement.—Geo. Mason, Syracuse, N. Y., is reported to expend several thousand dollars to improve Hardie Casino at Miami Beach; provide refreshment stand, cafe, new floor, soda fountain, screens, etc.

Ky., Hopkinsville.—Clubhouse.—Hopkinsville Golf & Country Club will erect clubhouse; about 55x50 ft.; frame; shingle roof; hardwood floors; electric lights; cost \$5000. Address Ed. L. Weathers, Secy.-Treas. (Previously noted.)

Mo., Kansas City.—Barn.—Chas. De Wolf will erect barn; cost \$5000.

Okla., Sapulpa.—Fair.—Creek County Fair Assn. is reported to erect several buildings and complete racetrack.

Tenn., Knoxville.—Home.—Trustees of Home for Friendless Babies (W. S. Shields, E. C. Camp, Annie Anderson and others) will erect \$3500 building.

Tex., Beaumont.—Stable.—A. G. Caston will erect \$5000 brick stable; 1 story; 75x140 ft.

RAILWAY STATIONS, SHEDS, ETC.

Ark., Newport.—St. Louis, Iron Mountain & Southern Ry., E. A. Hadley, Ch. Engr., St. Louis, will remodel and enlarge passenger and freight depot.

Ga., Palmetto.—Atlanta & West Point R. R. Co., A. B. Edge, Chief Engr., Atlanta, is having plans prepared for passenger and freight depot; 24x240 ft.; brick; concrete foundation; tile floors; asbestos shingle roof; 2 concrete underpasses; cost \$18,000.

Ga., Oglethorpe.—Southern Ry. System, R. Herman, Chief Engr. M. W. & S. Lines East, Charlotte, N. C., will erect station at Oglethorpe University; cost \$10,000.

Okla., Oilton.—Gulf Colorado & Santa Fe Ry., F. Merritt, Chief Engr., Galveston, Tex., will erect depot.

Tex., Beaumont.—Gulf, Colorado & Santa Fe Ry., F. Merritt, Chief Engr., Galveston, will expend \$6000 to repair and erect 2-story addition, 30x40 ft., to depot.

Va., Norfolk.—Chesapeake & Ohio Ry., P. I. Cabell, Chief Engr., Richmond, has plans by B. F. Mitchell, 500 Seaboard Bank Bldg., Norfolk, for 3 freight warehouses; 16x12 ft., 80x112 ft., 64x192 ft.; composition roofs; galvanized iron sides; wooden decking; bids opened May 30.

W. Va., Logan.—Chesapeake & Ohio Ry. Co., F. I. Cabell, Ch. Engr., Richmond, Va., does not contemplate erection of freight and passenger station, as lately reported.

SCHOOLS

Ala., Selma.—City votes June 21 on \$40,000 school bonds; H. H. Stewart, City Clerk.

Ark., Allport.—Allport Industrial Trade School, R. Amos, Promoter, will erect building to replace structure lately noted damaged by fire; 42x80 ft.; 2½ stories; frame; rubber roof; cost \$15,000; bids opened July 1; construction begins July 15 or 20. Address Mr. Amos. (See Machinery Wanted-Beaver Board; School Desires.)

Ark., Alpena Pass.—School Board will erect \$10,000 school building; voted 7-mill tax.

Ark., Casca.—City voted \$10,000 bonds to erect school building; Address The Mayor.

Ark., Magnolia.—School Board of Magnolia Special School Dist. will erect high school; will issue bonds.

Fla., Arch Creek.—Dade County School Board, Miami, accepted plans by August Geiger, Miami, for consolidated school for which \$15,000 bonds were voted; R. E. Hall, County Supt., Miami. (Lately noted.)

Fla., Lake Wales.—Polk County Board of Public Instruction, Bartow, Fla., will erect \$25,000 school; plans by A. C. Price and J. Rice Scott, Bartow; ready for bids by May 25. (Lately noted.)

Fla., St. Petersburg.—School Board is having plans prepared by Wm. B. Ittner, St. Louis, for \$160,000 high school, for which bonds were previously voted.

Ky., Paris.—City votes June 2 on \$46,000 bonds to erect school; W. O. Hinton, Chrmn. Finance Com. (Lately noted.)

Ky., Sedalia.—Sedalia Graded School Dist. has plans by Ellis X. Wickersham, Mayfield, Ky., for school; 66.6x71 ft.; brick; tin roof; wood floors; cost \$12,000; steam heat, \$1500; bids opened about June 10. (Previously noted.)

La., Alexandria.—Leland University Trustees selected site for \$100,000 buildings; Favrot & Livaudais, Architects, New Orleans. (Previously noted under La., New Orleans.)

La., Morgan City.—City voted \$60,000 bonds to erect school building. Address The Mayor.

Md., Baltimore.—Goucher College, St. Paul and 23d Sts., has plans by James Hewes for 2-story building on east side Oak St.; cost \$3000.

Miss., Ellisville.—Fairview Consolidated School Dist. is considering \$4000 bond issue to erect, repair and equip school buildings. Address Dist. School Trustees.

Mo., Caruthersville.—Caruthersville Dist. No. 18 voted \$45,000 bonds to erect 2 school buildings; one 70x104 ft.; brick and concrete; fireproof; 8 classrooms; gymnasium, 43x70 ft., in basement; track on first floor above gymnasium, 33 laps to a mile; other building brick and tile; 1 story; 2 rooms; 30x25 ft. (Lately noted.)

Mo., Mexico.—Missouri Military Academy, A. Burton, Prest., has plans by Barnett, Haynes & Barnett, Century Bldg., St. Louis, for 3-story addition; receives bids about June 1; cost \$50,000.

Mo., St. Louis.—City will erect school building. (See Hospitals.)

N. C., Cullowhee.—State will erect boys' dormitory at Cullowhee Training School; 45x50 ft.; brick; asbestos cement roof; concrete floors; electric lights; cost \$25,000; heating plant, \$3000. Address A. C. Reynolds, Cullowhee. (See Machinery Wanted—Pump.)

N. C., Edenton.—Edenton Graded School Dist. votes June 30 on \$10,000 school bonds; E. R. Conger, Mayor.

N. C., Shelby.—School Board has plans by Wheeler & Stern, Charlotte, N. C., for school building for which \$15,000 bonds were lately noted voted.

Okl., Blanchard.—Macklin & Faught, Architects, Chickasha, Okla., receive bids until May 31 to erect addition to high school; plans and specifications from Clerk of School Board, Blanchard, and architects as above.

Okl., Fillmore.—Board of Education opens bids June 1 to erect addition to school; 40x50 ft.; concrete walls; composition roof; wood floors; stove; cost \$5000; J. B. White, Architect, Ardmore. Address C. E. Enloe, Fillmore. (Lately noted.)

Okl., Porum.—School Dist. No. 88 of Muskogee County has plans by H. O. Valeur & Co., 705 Phoenix Bldg., Muskogee, Okla., for school; 1 story; 109x115 ft.; brick and stone; tar and gravel roof; one-pipe gravity steam heat; cost \$18,000; bids opened June 4. Address architects. (Lately noted.)

Okl., Shawnee.—City voted \$90,000 bonds to erect 2 ward schools and high school. Address Board of Education.

Okl., Stillwater.—State Board of Agriculture will erect science hall and armory-gymnasium buildings at Oklahoma Agricultural and Mechanical College; science hall to be fireproof; brick and stone; contain number of laboratories; armory-gymnasium also fireproof; brick and stone; main gymnasium, elevated running track, lockers, showers, etc., smaller gymnasium for girls, and armory; cost \$100,000 each; plans by F. W. Redlich, Dept. of Agriculture, care of college, who will supervise construction. (Lately noted.)

Okl., Thomas.—School Dist. No. 85 will not vote on \$30,000 bonds to erect school. (Lately noted to soon call election on this issue.)

Okl., Woodward.—City voted \$14,000 bonds to erect 2 additional rooms to high school. Address The Mayor.

S. C., Boykin.—Boykin School Dist. votes June 2 on additional tax to supplement tax lately noted to erect brick school, increasing amount from \$3000 to \$4000. Address District School Trustees.

S. C., Laurens.—City voted \$15,000 bonds to erect school buildings and dormitories for Teachers' Training School; County will issue like amount; building operations in charge of County Suprs. (Lately noted.)

S. C., McColl.—City voted \$15,000 bonds to erect school building. Address The Mayor.

Tenn., Benton.—Benton Grammar School Building Com., J. D. Clemmer, Secy., receives bids until June 1 on following contracts: (1) Finishing school building; (2) heating and plumbing, septic tank and connections; (3) electric wiring, including material; (4) slate blackboards; (5) furniture and fixtures; plans and specifications at office W. H. Sears, Archt., James Bldg., Chattanooga, and Benton Bank, Benton. (Previously noted.)

Tenn., Charleston.—Grammar School Board, W. L. Humphrey, Chrmn., has plans by Clarence T. Jones, 1102 James Bldg., Chattanooga, for high school; 76x95 ft.; brick and frame; concrete basement floor; other floors wood; blower system hot-air heat; electric lights; bids opened May 29. Address Mr. Humphrey, Cleveland, Tenn. (Lately noted.)

Tenn., Isabella.—W. F. Lamoreaux, chairman, receives bids until June 10 to erect grammar school building; separate bids for heating, plumbing and wiring; cost \$12,000; plans at office W. H. Sears, Archt., James Bldg., Chattanooga, and at office Mr. Lamoreaux. (Previously noted.)

Tenn., Knoxville.—City votes July 5 on \$350,000 bonds, to include \$150,000 to purchase site, construct and equip auditorium; \$150,000 to purchase sites, construct and equip school buildings; \$50,000 to purchase site, equip and maintain parks and playgrounds; John E. McMillan, Mayor. (Lately noted.)

Tenn., Knoxville.—School Board will soon call for bids on 4-room addition to Maynard school; plans prepared; also having plans prepared for addition to Van Gilder school. (Lately noted.)

Tenn., Paris.—City will erect school; cost \$7500 to \$10,000. Address Prof. Phillips. (Lately noted to have voted \$40,000 school bonds.)

Tenn., Tullahoma.—Board of Managers, Tennessee Vocational School for Girls, 211 Eighth Ave., North, receives bids until June 8 to erect dormitory; plans by Henry C. Hibbs, Stahlman Bldg., Nashville, cover excavation, foundation, rubble and cut-stone work, brickwork, reinforced concrete, cement floors, tile floors, sheet-metal work, slate roofing, lathing and plastering, painting and glazing, heating and electric work; plans and specifications at office G. W. Brown, Chrmn., Board of Managers, 211 8th Ave., North, Nashville. (Previously noted.)

Tex., Abilene.—R. S. Glenn, Archt., Abilene, opens bids June 2 to erect dormitory; plans and specifications at office Fraser Brick Co., Dallas, and architect as above.

Tex., Amarillo.—Amarillo Ind. School Dist. voted \$15,000 bonds to erect school. Address Dist. School Trustees.

Tex., Austin.—Gov. James E. Ferguson receives separate bids until June 18 to erect 5 additional fireproof and 2 frame buildings for State School for Blind; also separate bids for installation of plumbing, wiring and heating; plans from Albee B. Ayres, Archt., 626-27 Bedell Bldg., San Antonio. (Previously noted.)

Tex., Breckenridge.—Breckenridge Independent School Dist. voted \$13,000 bonds to enlarge and equip school building. Address School Trustees.

Tex., Bryan.—School Board is considering calling election on \$100,000 bonds to erect school.

Tex., Clarksville.—Board of Trustees, Clarksville City Schools, B. F. Marable, Secy., receives bids until June 7 to erect high school and ward school buildings; plumbing, heating and wiring under separate contracts; plans and specifications at office Sanguinet & Staats, Archts., Fort Worth. (Previously noted.)

Tex., Fallon.—Limestone County Common School Dist. No. 3 voted \$3000 bonds for school. Address Dist. School Trustees.

Tex., Gonzales.—Gonzales County voted \$17,500 bonds to erect schools. Address County Commrs.

Va., Goshen.—Walker's Creek School Board, J. F. Brooks, Chk., receives bids until June 9 to erect high school building; 2 stories; 6 rooms; plans and specifications at office D. E. Withrow, Goshen, or E. K. Paxton, Supt., Lexington, Va.

W. Va., Adamston.—Board of Education of Coal Dist. Harrison County will erect high school.

W. Va., Clarksburg.—J. B. Supler, Prest. Board of Education of Simpson Dist., care of Holmboe & Lafferty, Archts., Empire Bldg., Clarksburg, receives bids until June 2 to erect school building at Grassell; separate bids for plumbing, sewerage, gas fitting, electrical work, heating and ventilating; plans and specifications at office architects.

STORES

Ala., Haleyville.—Judge Curtis, Double Springs, Ala., will erect brick building to contain 2 stores.

Ark., Little Rock.—C. J. Lincoln Drug Co. will erect 5-story fireproof building.

Fla., Miami.—John Quinn, Miami, and Robert Reed, Bedford, Ind., will erect store and apartment building; 3 stories; concrete; E. A. Nolan, Archt., Miami.

Fla., St. Petersburg.—C. M. Roser has plans by Ferdon & Feltham, St. Petersburg, for store building; 80x100 ft.; brick and plaster; Carey roof; tile floors; gas heat; electric lights; cost \$10,000; bids opened June 1. (Lately noted.)

Ky., Hazard.—J. B. Combs and others will erect \$25,000 brick business block; will let contract at once.

Ky., Lexington.—A. B. Jones will erect store and lodge building to replace burned structure. (See Association and Fraternal.)

Ky., Lexington.—Byron McClelland estate is reported to rebuild Smith-Watkins-Darnaby Co.'s building; lately noted damaged by fire at loss \$25,000.

Mo., Kansas City.—Security Realty Co. will erect 3-story brick business block; cost \$25,000.

Okl., Enid.—Alton Mercantile Co. has plans by R. W. Shaw, Enid, for mercantile building; 60x160 ft.; brick and concrete; gravel roof; wood and concrete floors; cost \$25,000; elevators, \$1200; construction begins in July. (Lately noted.)

Okl., Oklahoma City.—Rorabaugh-Brown Dry Goods Co., 213-14 W. Main St., will expend \$20,000 to remodel portion of 3d floor and install 2 elevators.

Okl., Tulsa.—J. A. Waldrep will erect store building; 3 stories; brick and concrete; cost \$34,000.

Okl., Wirt.—B. B. Holliday will erect store to replace building damaged by fire.

S. C., Greenville.—F. L. Shackelford will expend \$5000 to repair building.

Tenn., Maryville.—Dr. R. W. Wells has plans by Manley & Young, Knoxville, Tenn., to erect store, office and apartment building; 66x100 ft.; 3 stories and basement; brick; cost \$15,000; construction by owner, begun; materials all purchased. (Lately noted.)

Tex., Beaumont.—Bernard Deutser will erect building for Deutser Furniture Co.; 4 stories; 87x115 ft. and 2-story annex, 20x85 ft.; semi-fireproof; brick and stone; plate-glass windows with marble base; Romanesque style; automatic fire protection facilities; vacuum cleaners; ice water circulating plant; mail chutes; elevators; electroliers; steam heat; cost \$50,000. F. W. Steinman, Archt., Beaumont.

Va., Hopewell.—J. Ralph Crutchfield and associates will erect \$30,000 business building.

Va., Roanoke.—M. C. Franklin will erect addition to building at Jefferson St. and Mountain Ave.; cost \$7500.

THEATRES

Mo., St. Louis.—Vaudeville Theater Co., 705 Olive St., has plans by Chas. H. Deiterling, 705 Olive St., St. Louis, for altering theater and office building on Grand Ave., near Olive St.; 80x150 ft.; fireproof; composition roof; reinforced concrete floors; remodel heating plant, ducts and fans; lighting indirect electric and gas outlets; re-install Otis elevators in new positions; cost \$100,000; bids opened May 29; practically all materials on premises. (Lately noted.)

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

D. C., Washington.—Wm. A. Hill let contract to M. G. Lepley, 1406 G St. N. W., Washington, to erect brick apartment-house at 640-42 Eleventh St. N. E.; cost \$8000.

Fla., West Palm Beach.—L. E. Estey let contract to H. C. Bartholomew to erect 2 apartment-houses; 100x50 ft.; Italian style; gray shingles; terra cotta, composition roof; 2 stories; 5 and 7 rooms; mirror doors; built-in ice box and cooling cabinet; gas and electric fixtures.

Ga., Atlanta.—Mrs. B. H. Barr has plans by and let contract to M. G. Norris, Atlanta, to erect apartment-house at 258 Boulevard; 3 stories; hollow-tile walls; composition roof; cost \$22,500.

La., New Orleans.—Jacob and Leopold Klein let contract to G. E. and E. E. Reiman to erect \$40,000 apartment-house; 12 apartments; 6 rooms each; 2 stories; 63x114 ft.; brick veneer; Nathan Kohlman, Archt., Godchaux Bldg., New Orleans.

Md., Baltimore.—H. C. Hahn let contract to J. Henry Smith, 1426 Light St., Baltimore, to erect apartment-house at Windsor Hills; cost \$12,000; Theodore Wells Pietsch, Archt., 1210 American Bldg., Baltimore.

Md., Baltimore.—Joseph A. and Elsie M. Kraft will erect 2-story and basement apartment-house and 1-story public garage at Harford Ave. and Abbottston St.; former to cost \$18,000; latter, \$12,000; Fred Decker & Son, Archts. and Contrs., 1209-11 E. Biddle St., Baltimore.

Tenn., Nashville.—E. R. Enkin let contract to Foster & Creighton Company, Nashville, to erect apartment-hotel; 72x116 ft.; 4 stories; reinforced concrete; fireproof; Johns-Manville roof; white oak floors on cinder concrete; cost \$95,000; vacuum heating system \$5000; passenger and freight elevators and dumb waiter \$5000; sub-contracts let; Marr & Holman, Archts., Nashville. (Lately noted.)

ASSOCIATION AND FRATERNAL

Tex., Kingsville.—A. F. & A. M. let contract to M. W. Marston, Kingsville, to erect Masonic temple with 4 stores on ground floor; 50x90 ft.; 2 stories; brick and tile; Barrett specification roof; pine floors; cost \$15,000; electric lights, \$400; cement sidewalks; Jul. Leffland & Son, Archts., Victoria, Tex. (Lately noted.)

BANK AND OFFICE

Fla., Daytona.—Merchants Bank let contract to erect 2-story addition to and improve bank building; cost \$10,000.

Fla., Sanford.—First National Bank let contract to S. O. Shinhouse, Sanford, to erect store and office building; 55x45 ft.; 2 stories; brick; Barrett specification roof; pine floors; cost \$10,000; E. J. Maughton, Archt. (Previously noted.)

Okl., Wirt.—Jennings & Lowenstein will erect moving-picture theater building to replace structure damaged by fire.

Tex., Dallas.—Interstate Amusement Co. has plans by J. Ebersson, Steinyway Hall, Chicago, for theater and office building; 100x200 ft.; 5 stories; reinforced concrete; built-up roof; metal floor domes; steam heat; electric freight and passenger elevators; cost \$250,000; contract let in about 60 days. Address Architect.

WAREHOUSES

Fla., Jacksonville.—H. T. Jones will erect galvanized building; cost \$4000.

Md., Baltimore.—Terminal Warehouse Co. has plans by Owens & Sisco, 1005 Continental Bldg., Baltimore, for corrugated iron and steel shed, 97 ft. long, at Bond Street wharf; contractors estimating are: Chas. L. Stockhausen Company, Marine National Bank Building; B. F. Bennett Building Co., 123 S. Howard St.; John Waters Building Co., 23 E. Center St.; Consolidated Engineering Co., 243-259 Calvert Bldg.; all of Baltimore.

Tex., Orange.—City will erect warehouse; 60x200 ft.; steel frame; tar and gravel roof; concrete floor construction; cost \$25,000; bids opened about August 1; construction begins Sept. 1. Address The Mayor.

Tex., Sherman.—Ferguson Seed Farms, 529 E. Jones St., will erect warehouse; probably 150x75 ft., 3 stories. (See Miscellaneous Enterprises.)

Va., Norfolk.—Merchants' Bakery has plans by James W. Lee, Seaboard Bank Bldg., Norfolk, for warehouse; brick; concrete floors; fireproof; cost \$25,000.

Fla., Tarpon Springs.—Mrs. Ira Cadwallader let contract to C. A. Gause, Tarpon Springs, to erect building for Bank of Commerce; 26x60 ft.; 1 story; stone and brick; tile floors; cost \$15,000; construction begins about August 1. (Lately noted.)

N. C., Asheville.—Battery Park Bank let contract to Boyles & Henry, Asheville, to install Indiana limestone front, and provide Barrett specification roof; will remodel structure, provide indirect lighting system, make banking-room 2 stories high, install safety deposit boxes in basement, etc.; cost \$12,000 to \$15,000; completion in about 60 days; Smith & Carrier, Archts., Asheville.

Okl., Pocomasset.—First National Bank of Pocomasset let contract to D. K. Koger, Pocomasset, to erect bank building; 25x50 ft.; brick; composition roof; cement and concrete floors; stove; cement sidewalk; cost \$3300; Macklin & Faught, Archts., Chickasha, Okla.

CHURCHES

D. C., Washington.—St. Paul's Catholic Church let contract to Chas. J. Cassidy Co., 715 Southern Bldg., Washington, to construct towers on church and make other improvements; steeples 150 ft. high; marble; cost \$50,000; Murphy & Olmstead, Archts., 1413 H St. N. W., Washington. (Lately noted.)

D. C., Washington.—St. Anthony's Catholic Church let contract to Chas. J. Cassidy Co., 715 Southern Bldg., Washington, to erect parish hall on 12th St.; 1 story and basement; 40x30 ft.; seating capacity about 300; gray tapestry brick; limestone trimmings; electric lights; steam heat; cost \$16,000; Murphy & Olmstead, Archts., 1413 H St. N. W., Washington.

Ga., Ellerslie.—Bethesda Baptist Church let contract to Lovejoy & Son, Greenville, Ga., to erect building; 36x53 ft.; 4 classrooms in rear, 12x12 ft.; frame; pine shingle roof; hardwood floors; hot-air heat; cost \$3500; lighting, \$175; T. F. Lockwood, Archt., Columbus, Ga. (Lately noted.)

Md., Princess Anne.—St. Matthew's Evangelical Lutheran Church let contract to erect building; Elijah Kaiser, Edward P. Pappendick, Sylvester Burns, Trustees.

S. C., North.—Methodist Episcopal Church South, Rev. C. B. Burns, Pastor, let contract to Boyd & King to erect lately-noted building; 75.8x87.5 ft.; brick; tin roof; wood floors; cost \$13,000; electric lights, \$250; John Gaisford, Archt., Memphis, Tenn. (See Machinery Wanted—Seating; Lighting; Fixtures; Art Glass.)

CITY AND COUNTY

Ga., Cordele.—Library.—Carnegie Library Board let contract to Little & Phillips, Cordele, to enlarge library; brick and joist construction; composition and metal roof; wood floors; steam heat; Eugene O. Wachendorf, Archt., Atlanta. (Lately noted.)

Okl., Henryetta.—City Hall, etc.—City let contract to erect 2-story and basement building.

fireproof city hall, auditorium and fire station; cost \$53,500; Weathers & Trapp, Architects, 605½ W. California St., Oklahoma City. (Lately noted.)

Okl., Sapulpa—Fire Station.—City Commissioners let contract at \$428 to Miller & Simpson, Sapulpa, to erect fire station No. 2; 39x42 ft.; brick, stone and stucco; tar and gravel roof; concrete slab floors; cost \$5000; W. M. Griffith & Sons, Architects, 2 Casteel Bldg., Sapulpa. (Previously noted.)

Tex., El Paso—Fire Station.—City let contract to R. E. McKee, El Paso, to erect fire station; 65x75 ft.; 3 stories; reinforced concrete; felt and gravel roof; concrete floors; steam heat; cost \$30,000; Brauntun & Leiber, Architects, El Paso. (Lately noted.)

Tex., San Angelo—Jail.—Tom Green County Comms. let contract to Willeke Bros., San Angelo, to erect addition to jail building; 3 stories; fireproof; tar and gravel roof; cost \$56,500; H. A. Overbeck, Archt., 502-06 Juanita Bldg., Dallas. (Lately noted.)

COURTHOUSES

W. Va., Ripley.—Jackson County Comms. let contract to Prescott Construction Co., Parkersburg, W. Va., to repair courthouse; 3 stories; 50x80 ft.; Bedford stone and reinforced concrete; steel trusses; tin roof; concrete slab, steel tile and marbleoid flooring; Warren-Webster modulating heating system; cost \$67,133; also let contract at \$5800 to J. P. Burke, Ripley, for installing heating and lighting systems; L. J. Dean, Archt., Huntington, W. Va. (Previously noted.)

DWELLINGS

Ala., Gadsden.—Mrs. W. D. Pinckard, 1030 Walnut St., let contract to B. W. Moyers, Gadsden, to erect residence; 1 story; Spanish Bungalow style; shingle roof; pine floors; hot-air furnace (contract not let); city lighting; cost \$3000; A. D. Simpson, Archt., Gadsden. Address owner.

D. C., Washington.—Wm. H. Sardo let contract to erect business and residence building. (See Stores.)

Fla., Lakeland.—G. W. Dudley let contract to Walter R. Wilson, Lakeland, to erect bungalow.

Fla., Miami.—J. F. Chaille and Hugh Anderson let contract to A. B. Crump Construction Co., Miami, to erect 50 dwellings to cost about \$3000 each, construct sidewalks, sewerage plant, water mains, etc., at Wyndwood Park.

Fla., West Palm Beach.—Frank Dimick let contract to H. C. Bartholomew to erect 10-room residence; 2 stories; gray shingles; terra-cotta composition roof; electric fixtures; laundry and garage.

Fla., West Palm Beach.—E. W. Ellis let contract to H. C. Bartholomew to erect residence; Swiss chalet style; first story coquina rock; gray shingles with white trimmings above; terra-cotta composition roof; 3 porches.

Ga., Augusta.—Mrs. John C. Lee let contract to A. M. Banks, Augusta, to erect dwelling; stucco on hollow tile; garage; cost \$7546; Bleckley & Irvin, Architects, Augusta.

Ga., Savannah.—A. Gordon Cassels let contract to Cox & Doke, Savannah, to erect residence; 2 stories; brick, frame and veneer; cost \$7000.

Ky., Ashland.—Pelphey & Davis have contract to erect 3 bungalows on Paw St.; frame; vulcanite roofing; oak floors; electric lights; J. Wilson, Archt.

Ky., Ashland.—G. E. Anderson let contract to J. Bryant to erect residence; 26x30 ft.; brick; slate roof; oak floors; electric lights; concrete sidewalks; cost \$3200; J. M. Wilson, Archt., Ashland, may be addressed.

La., New Orleans.—Mrs. Carrie S. Slier has plans by and let contract to Jones & Roessie, Maison Blanche Bldg., New Orleans, to erect residence on Hampson St.; cost \$9700. (Eureka Homestead Society lately noted to erect this building.)

Md., Knoxville.—C. W. Vltz, near Knoxville, let contract to H. B. Funk to erect brick dwelling on farm.

Mo., Kansas City.—Earl C. Haller will erect residence; 33x26 ft.; frame and stucco; shingle or composition roof; wood floors; hot-air heat; cost \$5000; let contract to Earl C. Haller Construction Co., 316 R. A. Long Bldg., which may be addressed. (Lately noted.)

Mo., Kansas City.—D. Smolinsky, 4602 Virginia Ave., let contract to A. L. Fowler & Sons, Kansas City, to erect apartment house; 6 suites; brick and concrete; gravel roof; oak floors; Kewanee boiler for heat;

plans by Mr. Burton with Hedrick & Hedrick, Kansas City. (Lately noted.)

S. C., Rock Hill.—J. B. Sykes let contract to A. F. Hester, Rock Hill, to erect residence.

Okl., Oklahoma City.—Frank E. Anderson let contract to W. L. Hawk, Oklahoma City, Okla., to erect \$20,000 residence; 2 stories; brick; 20 rooms; 3 sleeping porches; Hawk & Parr, Architects, Oklahoma City.

S. C., Anderson.—Geo. W. Speer let contract to G. E. Pinson, Greenwood, S. C., to erect 7-room \$4000 cottage.

Tex., Austin.—T. H. McGregor has plans by and let contract to Brydson Bros., Austin, to erect residence; 2 stories; frame and stucco; shingle roof; hardwood and pine floors; fireplace, gas and stove heat; city lighting; cost \$7500. Address owner. (Lately noted.)

Tex., Van Alstyne.—R. S. Fulton let contract to Eli Gentry, Van Alstyne, to erect residence; 44x62 ft.; frame; shingle roof; pine and oak floors; cost \$4000; base burner, \$300; electric lights, \$250; John Tulloch, Archt., Sherman. Address owner. (Lately noted.)

W. Va., Fairmont.—West End Improvement Co. let contract to J. M. Kiser Bros., Fairmont, to erect 6 bungalows; 6 rooms and bath; hardwood floors; cabinet mantels; water, gas and electric connections; front porches; Hugh Griffin, Archt., Fairmont.

W. Va., Fairmont.—Watson, Fleming & Millen Co. let contract to Fitzhugh & Brand, Fairmont, to erect 12 bungalows; 6 rooms and bath; hardwood floors; cabinet mantels; water, gas and electric connections; front porches; Hugh Griffin, Archt., Fairmont.

GOVERNMENT AND STATE

D. C., Washington.—Warehouses.—Columbia Warehouse Development Corporation let contract to E. H. Mosher to erect 2 warehouses at Pierce, M and First Sts. N. E., to be leased to Field Medical Supply Bureau of War Department; 2 stories; reinforced concrete; 390x130 ft.; steel sash; wire-glass windows; electric lights; steam heat; concrete floors; packing and storage compartments separated by fireproof doors; floors to support 600 lbs. to sq. ft.; gradual incline from ground to second floors, permitting loaded trucks driving to second floor; cost \$250,000; D. W. Bateman, Archt.

Ga., Leary.—Postoffice.—Mrs. F. R. Hammond and G. W. Hammond let contract to erect store and postoffice building. (See Stores.)

Tex., Beaumont.—Postoffice.—Treasury Department, Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., let contract at \$5514 to O. C. Herrenkind to remodel postoffice; plans include enlarging mail platform, cleaning and repainting terra-cotta trimmings, cleaning out brick and stone walls, painting roof, repairing smoke-stack and vent pipes, repairs to plumbing, lighting and heating systems. (Lately noted.)

Tex., Commerce.—Postoffice.—Treasury Department, Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., let contract at \$43,752 to Algernon Blair, Montgomery, Ala., to erect postoffice. (Lately noted.)

Tex., Fort Sam Houston.—Cantonment.—Government let contract to James Stewart & Co., First National Bank Bldg., Houston, 30 Church St., New York, and Oklahoma City, to erect barracks and other buildings at Fort Sam Houston, San Antonio and Leon Springs, Tex.

Tex., Leon Springs.—See Tex., Fort Sam Houston.

Tex., San Antonio.—See Tex., Fort Sam Houston.

HOSPITALS, SANITARIUMS, ETC.

D. C., Washington.—Washington Eye, Ear, Nose & Throat Hospital, Inc., 2517 Pennsylvania Ave. N. W., let contract to Guy Zepp, Southern Bldg., Washington, to erect hospital; 3 stories and basement; brick and cement; slag roof; cost \$30,000; smokeless boiler, vapor heat \$1500; elevator \$2000; Clarence Rose, Archt., 1424 K St. N. W., Washington.

Tex., Dallas.—Buchanan & Gilder, Dallas, general contractors to erect nurses training school and home at Texas Baptist Memorial Sanitarium, let following sub-contracts: Southwestern Plaster Co., plaster; J. B. Newhall Company, reinforcing; Whitley Paint & Paper Co.; all of Fort Worth, Mosher Mfg. Co., steel; E. E. Oates, natural stone; Acme Screen Co., screens; Desco & Son, tile; Buell Planing Mill, millwork;

Burton Lumber Co., lumber; Kinnison Bros., heating; J. M. Johnson Co., wiring; Chas. Jackson, excavating; R. J. Estep & Co., gravel and sand; Trinity Portland Cement Co., cement; Three-Way Prism Co., S. A. Ellsberry, Agt., sidewalk lights; all of Dallas; St. Louis Terra-Cotta Co., St. Louis, terra-cotta; plans by C. W. Bulger & Son, Dallas, call for 5-story and basement structure; 110x92 ft.; reinforced concrete and brick veneer; composition roof; probably marbleoid floor covering; steam heat; electric lights; cost \$175,000. (Previously noted.)

HOTELS

Miss., Tupelo.—Tupelo Hotel Co. let contract to Leake & Goodlet, Tupelo, to erect hotel; 60 rooms; brick; Johns-Manville roof; wood and tile floors; cost \$67,000; heating, about \$7000; elevators, \$2700; Xavier A. Kramer, Archt., Magnolia, Miss. (Previously noted.)

MISCELLANEOUS

N. C., Durham.—Fair.—State Fair Association let contract to T. M. Copeland, Raleigh, N. C., to erect women's and babies' buildings; former 100x80 ft.

N. C., Wilmington.—Greenhouses.—Will Rehder let contract to Hitchings & Co., Elizabeth, N. J., to erect 2 greenhouses; 150x36 ft. each; steel and concrete; double-strength glass.

S. C., Great Falls.—Barn.—Southern Power Co. let contract to Cleve Corner, Shelby, N. C., to erect barn for Great Falls Farm Co.; cost \$7000.

RAILWAY STATIONS, SHEDS, ETC.

Fla., Perry.—Live Oak, Perry & Gulf R. R. V. G. Watters, Chief Engr., Live Oak, Fla., let contract to J. B. Adams, Tifton, Ga., to erect passenger and freight station; 30x138 ft.; brick; composition roof; concrete floors; electric lights; stoves; cost \$5000. Address W. T. Hargrett, Gen. Mgr., Live Oak. (Previously noted.)

Ga., Atlanta.—Atlanta & West Point R. R. C. A. Wickersham, Prest. and Gen. Mgr., Atlanta, let contract to H. L. Stewart, Athens, Ga., to erect warehouse.

S. C., Greenville.—Piedmont & Northern Ry., E. Thomason, V.-P., Charlotte, N. C., let contract to Fiske-Carter Construction Co., Greenville, to repair freight depot lately noted damaged by fire.

Va., Richmond.—Richmond Terminal Ry. Co. let contract to P. J. White & Sons, Richmond, to erect express company's building; brick; refrigerating plant; cost \$30,000.

Va., Suffolk.—Norfolk & Western Ry., J. E. Crawford, Chief Engr., Roanoke, Va., let contract to C. W. Wade & Co., Roanoke, to erect freight station and office building; station 179x48 ft.; office department 55x50 ft.; brick and cement; steam heat; cost \$50,000. (Previously noted.)

SCHOOLS

Ala., Montevallo.—Trustees of Girls' Industrial School let contract at \$29,750 to Ager & Cline, Selma, to erect music hall; 30x120 ft.; hollow tile walls faced with brick; reinforced concrete floors; hollow tile partitions; slate roof; vapor vacuum heat; handpower freight elevator; Wm. T. Warren, Archt., Empire Bldg., Birmingham. (Lately noted.)

Fla., Ellenton.—Board of Public Instruction let contract to Stoltz & McIntosh, Palmetto, Fla., to erect school; A. C. Price, Archt., 303 Sarasota Ave., Bradentown, Fla. (Previously noted.)

Ga., Montgomery.—Chatham County Board of Education, Savannah, let contract to Cox & Doke, Savannah, to erect 3-room frame school; cost \$6100. (Lately noted.)

Ga., Woodville.—Chatham County Board of Education, Savannah, let contract to Stillwell-Wyly Corporation, Savannah, to erect school; 6 rooms; frame; cost \$10,000; Levy & Clarke, Architects, Savannah. (Lately noted.)

La., Alexandria.—Parish School Board let contract to Gher Construction Co., Alexandria, to erect public school building at Well; \$12,500 bonds lately noted voted.

La., Ball.—Parish School Board let contract to Gher Construction Co., Alexandria, La., to erect school building; \$12,500 bonds lately noted voted.

La., Pineville.—Education Commission of Louisiana Baptist Convention, Alexandria, La., let contract to E. T. Elam, Pineville, to erect college dormitory; 60x126 ft.; 3 stories; ordinary brick construction; asbestos shingle roof; double floors with builders' felt; cost \$25,000; hot-water heat, \$5000; electric

lights, \$1800; C. S. Yeager, Archt., Alexandria. (Previously noted.)

Miss., Sand Hill.—Board of Education, Ellisville, Miss., let contract to J. J. Jones to erect school building.

Mo., Amity.—School Dist. No. 5 let contract to Chas. P. Norris, St. Joseph, Mo., to erect school; 44x64 ft.; ordinary brick construction; tar and gravel roof; wood floors; cost \$12,000; steam heat, \$1500; H. W. Underhill & Co., Architects, Bryant Bldg., Kansas City. (Lately noted.)

Mo., Weatherby.—School Dist. No. 10 let contract to Morris & Tomlinson, Gallatin, Mo., to erect school; 36x56 ft.; brick and concrete; tar and gravel roof; wood floors; cost \$19,000; fan furnace heating system, \$1900; H. W. Underhill & Co., Architects, Bryant Bldg., Kansas City. (Lately noted.)

Okl., Amber.—District School Board let contract to Wheatland Grain & Lumber Co., Amber, to erect consolidated school addition; 50x64 ft.; brick; rubber shingle roof; wood floors; steam heat; electric lights; cost \$15,400; E. H. Eads, Archt.; all work under one contract. (Previously noted.)

Okl., Chickasha.—School Board let contract to Campbell & Price, Oklahoma City, to erect addition to junior high school and ward school; 55x186 ft. and 55x126 ft.; brick and stone walls; frame interior; tar and gravel roof; concrete floors; cost \$66,800; split heating system, direct vacuum steam and blast, \$5500 and \$4000; Macklin & Faught, Architects, Chickasha.

Tex., Megargel.—School Board let contract to J. L. Scott, Abilene, Tex., to erect school; tar and gravel roof; frame floor construction; cost \$9730; R. S. Glenn, Archt., Abilene. (Lately noted.)

STORES

D. C., Washington.—Wm. H. Sardo let contract to W. C. Avery to erect business building and dwelling at 412 H St. N. E.; cost \$13,000; Julius Wenig, Archt., 721 Tenth St. N. W., Washington.

Fla., Sanford.—First National Bank let contract to erect store and office building. (See Bank and Office.)

Ga., Leary.—Mrs. F. R. Hammond and G. W. Hammond let contract to Price Perry, Arlington, Ga., to erect store and postoffice building; 50x60 ft. and 30x60 ft.; brick; tin roof; wood floors; fireplaces; cost \$3500 to \$4000. (Lately noted.)

Miss., Clarksdale.—R. N. McWilliams let contract to erect store and theatre building. (See Theaters.)

Tex., El Paso.—Z. T. White let contract to Kroeger, Mayfield & Shaw, El Paso, to erect business building; reinforced concrete; 4 stories; 120 ft. square; cost \$66,000.

Tex., Kingsville.—A. F. & A. M. let contract to erect store and Masonic Temple. (See Association and Fraternal.)

THEATRES

Miss., Clarksdale.—R. N. McWilliams let contract to Nicol, Langford & Johnston, Louisville, Ky., to erect store and theater building; concrete; brick facing; cost \$120,000; John Gaisford, Archt., Goodwyn Institute, Memphis, Tenn. Address contractors. (Lately noted.)

WAREHOUSES

D. C., Washington.—Columbia Warehouse Development Co. let contract to erect 2 warehouses to be leased to War Department. (See Government and State.)

D. C., Washington.—James J. Leary let contract to Chas. E. Burch to erect brick warehouse at 2513 M St. N. W.; cost \$3000; B. Stanley Simmons, Archt., 306 R. E. Trust Bldg., Washington.

Ga., Atlanta.—Atlanta & West Point R. R. let contract to erect warehouse. (See Railway Stations, etc.)

Tex., El Paso.—Drs. Howard and Crimen let contract to Jennings Construction & Engineering Co., 504 Martin Bldg., El Paso, to erect warehouse; 3 stories and basement; 120x100 ft.; reinforced concrete, flat slab design (Trussed Concrete Steel Co., Youngstown, Ohio); flat slab floor; cement sidewalks; cost \$46,000; no heating plant; electric lights, \$550; Otis electric elevator, \$3000; completion in 90 days; O. H. Thorman, Archt., First National Bank Bldg., El Paso. (Lately noted.)

Va., Laray.—Deford Co. has plans by and let contract to Mims, Speake & Co., to erect storage building for tannery; 60x100 ft.; reinforced concrete foundation; gray concrete stone walls; white stone trim; cement and marble floors; electric elevators.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Altar.—See Building Materials.—Rev. C. E. Snowden.

Art Glass.—Rev. C. B. Burns, North, S. C.—Prices on art glass, pews, electric wiring and lights for \$13,000 church building.

Bag Machinery.—See Overall Machinery, etc.—Ben Van Dalsem.

Beaver Board.—R. Amos, Allport, Ark.—Prices on beaver board for \$15,000 school building.

Boilers (Water-tube).—Monsanto Chemical Works, 1800 S. 2d St., St. Louis, Mo.—Two water-tube boilers, about 500 H. P. capacity each; stand insurance inspection; down draft if hand fired; if stokers, chain grates preferred; state age, make and where located.

Bolts and Nuts.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish steel bolts and nuts, schedule 1181, delivery Washington.

Bridges.—See Road Construction.—J. K. Denham, Forrest County Commr., Hattiesburg, Miss.

Bridge Construction.—See Road Construction.—Allen Parish Supvrs.

Bridge Construction.—Tarrant County Commrs., Fort Worth, Tex.—Bids until June 4 to construct old Seventh St. bridge at point on Clear Fork; plans and specifications on file with County Engr. and obtainable on application; W. E. Yancy, County Auditor.

Bridges (Steel).—Knox County Fiscal Court, Barbourville, Ky.—Bids until June 11 for one 43-ft. and one 45-ft. steel bridges; plans on file of Clerk County Court.

Broom Machinery.—Thos. C. Dobbs, 204 Courthouse, Birmingham, Ala.—Data and prices on broom machinery.

Building Materials.—Rev. C. E. Snowden, South Annie St., Tyler, Tex.—Prices on millwork, hollow tile, lighting fixtures, seating, altar, heating, plastering and all sub-bids for \$25,000 church building.

Building Machinery.—Salem Foundry & Machine Works, Salem, Va.—Prices on lumber and other building materials for rebuilding of burned mill; fully supplied with brick.

Cars.—See Rail, Pipe, Tanks, etc.—Mid-West Iron Co.

Calson Gates (Drydock).—Navy Dept., Bureau Yards and Docks, Washington, D. C.—Bids until June 11 for constructing calson gates for drydocks at navy-yards, Philadelphia and Norfolk; specifications (No. 2394) and drawings obtainable on application to Bureau or to commandants of navy-yards named.

Canning Machinery.—R. L. Walker, Farm Product Exchange, Macon, Ga.—Data and prices on machinery for canning and otherwise handling sweet potatoes.

Cars (Dump).—Jewel Supply & Equipment Co., 34 S. Calvert St., Baltimore, Md.—Prices on six 36-in.-gauge 1½-yd.-capacity Koppel V-shaped dump cars.

Chain Block.—Ben Fox Cooperage Co., 306 First Ave., North, Nashville, Tenn.—8 to 8-ton chain block; second-hand preferred.

Coal-cutting Machinery.—Roy C. Whayne Supply Co., 313 W. Main St., Louisville, Ky.—Prices on small under-cutting coal machine.

Conveyors.—See Grain Elevator Equipment.—Arkadelphia Milling Co.

Contractors' Equipment.—American Tobacco Co., Arthur C. Ehrlich, Engr., Reidsville, N. C.—Prices on contractors' equipment, including electric hoist, batch mixer, wheelbarrows, etc.

Corn Mill Machinery.—Sewell Grain & Fuel Co., Vernon, Tex.—Prices on corn mill machinery; daily capacity 2000 lbs.

Cotton Gin Machinery.—Ferguson Seed Farms, 529 E. Jones St., Sherman, Tex.—Interested in prices on additional machinery for cotton gin. (See Elevator (Seed) Plans and Machinery, etc.)

Cranes.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on 3 self-supporting 3 and 5-ton capacity jib cranes, schedule 1163, delivery Philadelphia.

Cranes (Locomotive).—E. G. Quickel & Co., York, Pa.—Prices on 5-ton and 15-ton standard gauge locomotive cranes.

Cranes, Pumps, etc.—Bureau Supplies and Accounts, Navy Department, Washington, D. C.—Bids until June 5 for delivering jib cranes, plate bending and flanging machine, refrigerating plant, pumps, plate-bending rolls, sheet steel, indicating and annunciating system and pump, and deck

winches at Navy Yard, Philadelphia; apply for proposals to supply officer, Navy Yard, Philadelphia, or to Bureau.

Cypress.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on 55,000 ft. cypress, schedule 1161, delivery Boston.

Dam Construction.—Office of City Secy., Rosebud, Tex.—Bids until June 5 to construct dam 1000 ft. long, 30-ft. crown, average height 16.15 ft., for 92,000,000-gal. reservoir; plans and specifications on file with City Secy.

Derrick (Stiff-leg).—Samuel T. Williams, 223 N. Calvert St., Baltimore, Md.—Iron or wood stiff-leg derrick, about 65 to 70-ft. boom, to lift about 5000 lbs., for clam-shell bucket; also irons for stiff-leg derrick, 10-in. mast, 8-ft. boom.

Drainage System.—Plaquemine Drainage Dist. of St. Landry Parish, Chas. F. Bogani, Prest., Opelousas, La.—Bids until June 18 to construct drainage system; 42.2 mi. ditch, bottom ranging from 6 to 28 ft.; 518,000 cu. yds. excavation; plans and specifications on file with R. M. Hollier and W. B. Robert, Civil Engrs., Opelousas.

Dredging Channel.—Donald Alvord, Harbor Oaks, Clearwater, Fla.—Invites bids for dredging channel and filling in pond at Harbor Oaks; will furnish details and specifications.

Drills (Well).—See Rail, Pipe, Tanks, etc. Mid-West Iron Co.

Dyeing Machinery.—Southern Finishing Mills, Thomasville, N. C.—Dyehouse machinery.

Electrical Equipment.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on electrical equipment; rammers, powder hoists, shell hoists, etc.; schedule 1181, delivery Washington.

Electrical Equipment.—Union Central Light & Power Co., Hubbard, Tex.—80 to 100 H. P. 220-volt direct current motor; 1200 R. P. M., complete with sliding rail, starting box and rheostat to match, new or second-hand, first-class condition; 55 H. P. starting box, with oil switch to match, for 2300-volt 60-cycle 3-phase current; 2300-volt 60-cycle 3-phase wattmeter.

Elevator (Seed) Plans and Machinery.—Ferguson Seed Farms, 529 E. Jones St., Sherman, Tex.—Suggestions and plans from builders and prices from machinery supply houses for seed corn plant and seed grain elevator; work to be commenced as soon as plans are matured and contracts let; elevator capacity 50,000 to 75,000 bu.; seed plant capacity 700 to 1200 bu. daily; ear corn and seed grains to be received from cars and wagon; plans to allow for future increase of elevator storage; also wants prices on machinery for working corn and other field seeds; use electric or oil power; overhaul lately-purchased gin plant and install new machinery; also needs equipment for 2 loading dumps or small loading elevators. For further information address the company.

Engine.—Kershaw Oil Mill, Kershaw, S. C.—Good second-hand Corliss engine; 22x48 or 24x48; give full description, where located and best price.

Engine.—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Price on first-class second-hand 25 to 50 H. P. gasoline, oil or distillate stationary engine.

Engine (Hoisting).—Samuel T. Williams, 223 N. Calvert St., Baltimore, Md.—Hoisting engine, 3 drums with boom swing; about 5½x2 to 7x10 cylinders, without boilers.

Engine (Tractor).—See Road Machinery.—Chas. E. Gross.

Engines (Traction).—Crosby County Commrs., John K. Fullingim, Commr., Crosbyton, Tex.—Prices on tractor engines; prefer heavy Avery engine to pull 12-ft. Mogul grader.

Evaporating Machinery (Fruit).—D. G. Tatum, 418 S. Ellis St., Salisbury, N. C.—Data and prices on fruit-evaporating equipment.

Filter (Water).—J. S. Young Co., 2701 Boston St., Baltimore, Md.—Prices on water filter for plant at Charlottesville, Va.

Fire Apparatus.—City of Fayetteville, Ark., Allan M. Wilson, Mayor.—Bids until June 9 on combination hose and pumping, motor-driven fire apparatus; capacity at least 1250 ft. 2½-in. standard fire hose; motor 60 to 110 H. P.; rotary-gear pump 350 to 700 G. P. M.; apparatus to be complete with ladders and other equipment,

including suction hose and adaptors suited to the city; speed at least 40 mi. per hour on 2 per cent. grade; not above 9000 lbs. weight empty; demonstration required; Mayor advises Manufacturers Record: Will receive bids for apparatus with and without chemical attachment; Allan M. Wilson (Mayor), Chrmn., and H. E. Cravens, Secy., Board Public Affairs.

Fluorspar.—Charles R. Fife Co., 1411 Central National Bank Bldg., St. Louis, Mo.—Fluorspar in car lots.

Frogs and Switches.—Cambro-Clinton Mining Corp., 200 N. 21st St., Birmingham, Ala.—Prices on 10 frogs and switches for 25-lb. relaying rails.

Furnaces and Blowers.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on furnishing and installing 14 complete furnaces and blowers, schedule 1186, delivery Philadelphia and Norfolk.

Garage and Machine Shop Equipment.—Sam F. Baker Motor Car Co., 3328 Main St., Kansas City, Mo.—Prices on 20-in. drill press, lathe, arbor press, grinder and buffing machine, electric motor, air compressor, motor benches.

Generating Sets.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on 2 Diesel engine-driven generating sets, schedule 1164, delivery St. Juliens Creek (Norfolk), Va.

Generating Sets (Electric), etc.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 5 for delivering forging presses, horizontal centrifugal pumps, generating sets and deck winches at navy-yard, Norfolk. Apply for proposals to supply officer, navy-yard, Norfolk.

Grain Elevator Equipment.—Arkadelphia Milling Co., W. N. Adams, Mgr., Arkadelphia, Ark.—Prices on conveyors and other grain elevator machinery.

Heating.—See Building Materials.—Rev. C. E. Snowden.

Heating Systems.—Baltimore (Md.) Board of Awards.—Bids until June 6 for heating systems for schools Nos. 54, 20, 12, 99, 3 and 28; drawings and specifications on file with J. J. Byrne, Bldg. Inspector.

Hoist (Mine).—Keiser-Geisler Engineering Co., 1308 American Trust Bldg., Birmingham, Ala.—Mine hoist; second-hand, 12x15 in., double cylinder, single friction drum about 54-in. diam., self contained, geared about 1 to 5; give builder's name, specifications, full details, with location and price.

Hoists (Electric).—See Contractors' Equipment.—American Tobacco Co.

Incline Machinery.—See Mining Machinery (Coal).—Sewell Valley Coal Co.

Iron (Angle, Channel, etc.).—International Filler Corp., Salem, Va.—Prices on 1½x1½x3-16 angle iron; 2x1½x3-16 angle iron; 1½x½x3 channel iron; 1x1½x3 angle iron; 1½x3-16 channel iron; ½-in. round iron; ¾x3-16 flat tire iron; 1½x3 flat iron.

Ironworking Machinery, etc.—Salem Foundry & Machine Works, Salem, Va.—Prices on motors, woodworking and ironworking machinery.

Irons.—See Derrick (Stiff-leg).—Samuel T. Williams.

Knitting Mill Equipment.—Southern Finishing Mills, Thomasville, N. C.—Boarding-room machinery.

Lathes, Pumps, etc.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 5 for turret lathes, hobbing machine, pumps and deck winches at navy-yard, Boston. Apply for proposals to supply officer, navy-yard, Boston.

Loading Machinery.—See Elevator (Seed) Plans and Machinery, etc.—Ferguson Seed Farms.

Lighting Fixtures.—See Building Materials.—Rev. C. E. Snowden.

Lighting Fixtures.—See Art Glass.—Rev. C. B. Burns.

Locomotives.—See Rail, Pipe, Tanks, etc.—Mid-West Iron Co.

Machines and Tools.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on 2 universal hexagon hollow turret lathes and a hobbing machine (motor driven, for worm wheels), schedule 1167, delivery Boston; machine (plate-bending and flanging rolls), schedule 1166, delivery Philadelphia; boring machine (universal, vertical spindle), hollow-chisel, vertical mortiser and wood bench trimmers, schedule 1169, delivery Washington; 800-ton high-speed forging press and 2 hydraulic forging presses, 150-ton capacity, schedule 1165, delivery Norfolk.

Machinery, etc.—Barles Jeune, 23 Rue du Temple, Paris, France.—To represent man-

ufacturers of tools, hardware; articles for the household and for lighting; heating outfits; machinery; elevators and lifts; railroad supplies; equipments for workshops and factories; separate parts for automobiles and motors; machinery for mines; manufacturers of white (unpainted) wood for sanitary and cleaning purposes; novelties and all kinds of patented products.

Miller (Plane).—E. G. Quickel & Co., York, Pa.—Prices on 32 or 34 Kemp Smith plane miller.

Milling Machines, etc.—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 5 for delivering bolts and nuts, electrical equipment (rammers, powder hoists, etc.), lathes; boring, engraving and milling machines, mortiser, drill presses, high-resistance receivers, shapers, wood bench trimmers and crane trucks at navy-yard. Apply for proposals.

Mining Machinery (Coal).—Kentucky-Elkhorn Coal Corp., H. A. Womack, Mgr., Praise, Ky.—Prices for immediate delivery on 250-volt D. C. Goodman short-wall 6-ft. cutter bar mining machine.

Mining Machinery (Sulphur; Retort System).—American Sulphur Co., Majestic Hotel Bldg., Lake Charles, La.—Addresses of manufacturers of machinery to extract sulphur contained in gypsum and rock; use retort system.

Mining Machinery (Coal).—Sewell Valley Coal Co., E. C. Minter, Prest.-Mgr., Besoco, W. Va.—Prices on incline machinery, power equipment and mine cars.

Mixers.—See Contractors' Equipment.—American Tobacco Co.

Motors (Electric).—See Ironworking Machinery, etc.—Salem Foundry & Machine Works.

Motor (Electric).—Shuping & Poteet, Morgantown, N. C.—Prices on 30 H. P. 3-phase 60-cycle A. C. 900 R. P. 2300-volt motor; new or good second-hand.

Motor (Electric).—See Garage and Machine Shop Equipment, etc.—Sam F. Baker Motor Car Co.

Motors (Electric).—Hayden Corbett Chain Co., J. T. Corbett, Mgr., Columbus, Ohio.—Interested in prices on electric motors; for installation Huntington, W. Va.

Name Plates (Brass).—E. L. Henson Co., Clarksville, Tenn.—Data and prices on brass name plates.

Overall Machinery, etc.—Ben Van Dalsem, Secy. Chamber of Commerce, Moultrie, Ga.—Data and prices on machinery to manufacture overalls, pants and bags.

Paving.—City of Gretna, La., John Ehret, Mayor.—Bids until June 25 to pave with bitulithic and small granite blocks on concrete sub-base sections of Copernicus Ave., First, Washington, Anson and other streets; plans and specifications on file with John Ehret, Mayor; copies furnished for \$10.

Paving.—C. M. Holland, Purchasing Agent, 607 Courthouse, Atlanta, Ga.—Bids until June 16 to pave Bowen St. from Chatahoocsee Ave. to Howell Mill Rd. with clay-bound or penetration macadam; Brady St. from Marietta to 10th Sts., Peachtree Rd. from city limits to Buckhead St., Gordon Rd. from city limits to Hightower Rd., Ashby St. from Murphy to Deckner Sts. and Lakewood Park driveways; all with concrete, vitrified brick, bituminous concrete, bituminous macadam or patented pavement, such as bitoslag, bitulithic, vitrolithic, etc.; suitable gutter; total paving, 100,000 sq. yds., and gutters, 50,000 yds.; for information and specifications address Mr. Holland.

Pipe (Cast-iron, Water).—A. J. Dossett, 209 Bankers' Trust Bldg., Waco, Tex.—To buy 6000 ft. second-hand 6-in. cast-iron water pipe.

Pipe (Galvanized Iron).—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on 11,400 ft. galvanized wrought-iron pipe, schedule 1178, delivery Las Animas, Col.

Planer (Iron).—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Second-hand iron planer for planing marble 4 to 5 ft. between housings, 30 to 12 ft. long, 4 to 5 ft. high; state condition and location, with freight rate to Knoxville.

Power Punch.—Smith-Mayne Mfg. Co., Winder, Ga.—Power punch or press for punching ¾ through ¾ soft steel.

Pump.—A. C. Reynolds, Cullowhee, N. C.—Prices on vacuum steam pump and pump to force water into 80 H. P. boiler.

Rail, Pipe, Tanks, etc.—Mid-West Iron Co., 329 Railway Exchange Bldg., Kansas City, Mo.—Prices for quick delivery on following: Pipe (merchants' and line) with

recess couplings; oil-storage tanks, any size, open or closed; new or second-hand well casing, heavy and light weight, sizes up to 12½ in.; well drills, 500 ft. to 2500 ft. capacity; large quantities relaying rail, 30 to 70 lbs.; 12-in. sheet piling, 35 ft. long, any standard make, Missouri delivery; cars, 3-ft. gauge, 30-ton, automatic air coupler double-truck ore cars, bottom dump; 30 to 50-ton locomotives, electric locomotive, standard gauge, with or without motors.

Rails.—Walter B. Miller, Bon Secour, Ala. Prices on second-hand light railroad steel.

Rails.—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' prices on relay rails; 25 to 45 lbs.; immediate shipment.

Railroad Material.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on 21,300 lbs. splice bars for 60-lb. rail; 2100 lbs. bolts (track, hexagon nuts, oval, spikes); 30,000 ft. yellow pine (switch timbers); 17 prs. each, points, frogs, etc.; 375,000 lbs. 60-lb. standard rail; 4500 oak cross-ties; all schedule 1160, delivery St. Juliens Creek (Norfolk), Va.

Receivers.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on receivers, 400 each, high-resistance and non-adjustable type, radio head, with cord; schedule 1182, delivery Washington.

Ring-splitting Machine.—Houper Machine Co., 351 W. 52d St., New York.—Prices on used Ackley Abbey ring-splitting machine.

Heads and Tanks (Steel).—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on steel heads and tanks, schedule 1170, delivery f. o. b. works.

Road Construction.—Tallahatchie County Highway Commrs., Charleston, Miss.—Bids until June 5 to construct 21.5 mi. 16-ft. oiled gravelled road; A. N. Bullitt, Engr., 92 N. Tucker St., Memphis, Tenn. (Bids lately noted for earlier date were rejected.)

Road Construction.—Acadia Parish Supervisors, Crowley, La.—Bids until June 26 to construct 70 mi. metal-surface roads; plans and specifications on file with Secy. of Board.

Road Construction.—Cross County Road Improvement Dist. No. 1, R. W. Minnie, Secy., Wynne, Ark.—Bids until June 15 to construct 18½ mi. gravel road with concrete; pile bridges; 100,000 cu. yds. excavation; 72 lin. ft. 18-in. pipe, 192 lin. ft. 24-in. pipe, 610 lin. ft. pile bridges, 130 cu. yds. reinforced concrete, 83 cu. yds. plain concrete; local creek gravel, 36,886 cu. yds., screened, loaded, hauled, roll, etc., in finished road; plans and specifications from C. B. Bailey, Engr., Wynne.

Road Construction.—Lawrence County Road Com., E. G. Parkes, Secy., Lawrenceburg, Tenn.—Bids until June 15 to improve 3 roads; approximately as follows: Road No. 2, Pulaski Rd., 23½ mi. graded and drained, and 11 mi. chert surfacing, \$60,000; Road No. 3, Ethridge to Cross Roads, 3¼ mi. graded and drained, and surfaced with chert, \$10,000; Road No. 4, Henryville Rd., 11½ mi. graded and drained, \$18,000; for plans, specifications, etc., address R. M. Barker, Engr., Lawrenceburg.

Road Construction.—Frederick County Commrs., H. L. Gaver, Clerk, Frederick, Md.—Bids until July 2 to construct section State-aid Highway, 4.38 mi., on Lewistown-Creagerstown Rd.; plans may be seen and specification forms and contract obtained for \$1 at office of Maryland State Roads Com., 601 Garrett Bldg., Baltimore, Md.

Road Construction.—Comms. Prairie County Road Improvement Dist. No. 4, E. E. Washburne, Engr., Des Arc, Ark.—To let contract about June 15 to construct 9 mi. macadam road from Prairie-Woodruff County line west through Des Arc.

Road Construction.—Beauregard Parish Police Jury, De Ridder, La.—Bids until June 6 to construct dirt and gravel roads; cost about \$250,000; L. S. Bryant, De Ridder, Engr.

Road Construction.—Preston County Court, Kingwood, W. Va.—Bids until June 16 to construct following 15-ft. concrete roads in Portland Dist.: Corinth Rd. No. 1, end of brick, Terra Alta to Maryland line, 3.9 mi.; Kingwood Rd. No. 3, end of brick, Terra Alta to Caddell Bridge, 6.9 mi.; St. Joe-Brandonville Rd. No. 2, from Pleasant Dist. line through Albright and St. Joe to Caddell Bridge, 5.7 mi.; alternate route—Terra Alta-St. Joe Rd., end of brick at Terra Alta to St. Joe, 6 mi.; for further information address County Clerk or H. E. Wilhelm, Dist. Engr., Kingwood.

Road Construction.—Johnston County Commrs., Wilders Township, Smithfield, N. C.—Will let contract June 2 to improve roads; plans and specifications obtainable

on application to E. P. Lore, Engr., Smithfield.

Road Construction.—J. K. Denham, Forrest County Commr., Hattiesburg, Miss.—Bids until June 5 to improve following roads: Hattiesburg-Richton, Hattiesburg-Eatonville, Hattiesburg-Brooklyn, and Brooklyn-Bond; about 45.8 mi.; bid invited as a whole on improving, grading, bridging and surfacing, and furnishing material, also bids on each section specified; plans and specification on file office of Herbert Gillis, Chancery Clerk; estimated quantities include 62,100 lin. ft. fence and wire fence; 71.6 acres clearing and grubbing; 105,200 cu. yds. grading; 44,800 cu. yds. overhaul 100 ft.; 2004 lin. ft. 15-in. pipe, 678 lin. ft. 18-in. pipe and 1028 lin. ft. 24-in. pipe; all in place; 623.5 cu. yds. plain concrete; 789 stations grader work; 626.40 cu. yds. gravel surface; 63,500 B. M. lumber in bridges and culverts; 70,130 cu. yds. gravel hauled 1 mi.; 2300 cu. yds. gravel screened; F. T. Myers, Engr.

Road Construction.—Marion County Court, A. G. Martin, Clerk, Fairmont, W. Va.—Bids until June 14 on 15 mi. brick and concrete roads, Grant Dist.

Road Construction.—Maryland State Roads Commission, 601 Garrett Bldg., Baltimore, Md.—Bids until June 12 on road improvements: Contract No. W-16, Washington and Frederick counties, grading and draining on Harpers Ferry Rd., 3.51 mi.; Contract W-17, Worcester County, grading and draining Pocomoke to Stockton Rd., 2.15 mi.; Contract Co-9, Caroline County, building .65 mi. concrete road through Greensboro; Contract T-11, Talbot County, 4.63 mi. concrete road, Claiborne to St. Michaels; Contract 049-E, Cecil County, 2 sections gravel road between North East and Elkton, 0.26 mi. and 0.57 mi., surfaced with concrete; under Federal-aid Act, Contract P-16, Prince George's County, building section, 3.25 mi., Defense Highway from Bladensburg toward Annapolis, and Contract F-23, Frederick County, section 2.01 mi. from Buckeystown turnpike south; specifications and plans obtainable from Commission for \$1.

Road Construction.—Office State Highway Commission, G. P. Coleman, Commr., Richmond, Va.—Bids at office Montgomery County Clerk, Christiansburg, Va., until June 7 to grade and drain 8 mi. of road between Shawsville and Floyd County line, Montgomery County; plans and specifications on file at Clerk's office, Christiansburg, and with State Highway Commission, Richmond; specifications furnished by Mr. Coleman.

Road Construction.—Allen Parish Supvrs., Road Dist. No. 2, Geo. M. King, Jr., Secy., Kinder, La.—Bids June 28 at Calcasieu National Bank of Southwest Louisiana Bldg. on following: Dredging, grading, grubbing, clearing, draining, bridging and construction of roads as per maps and drawings with Secy. and with W. L. Stevens, Engr., 312 Whitney-Central Bank Bldg., New Orleans; specifications, etc., obtainable from Engr.; construction includes: Road from Kinder to Calcasieu River, 129 stations, Division A; Kinder to Lauderdale, 271.62 stations, Division B; Kinder to Jefferson Davis Parish line, 210 stations, Division C; Kinder to Oberlin Ward line, 309.73 stations, Division D; Kinder to Indian Village, 501.8 stations, Division F; Road No. 1, 182.86 stations; Road No. 2, 210 stations, and Road No. 3, 154.64 stations, St. Elmo Dist.; separate bids to be made on each division and on each road in St. Elmo Dist.; also on bridge and culvert work in each division and each road in St. Elmo Dist.

Road Roller.—W. Hill Small, Martinsburg & Potomac Turnpike Co., Martinsburg, W. Va.—Prices on new or second-hand 10-ton road roller.

Road Machinery.—Monroe County, G. T. Tubb, Commr., Aberdeen, Miss.—Prices on grader, wheel scrapers, etc.

Road Machinery.—Chas. E. Gross, County Auditor, Dallas, Tex.—Bids until June 4 to furnish gasoline tractor engine, 25, 30 and 40 H. P., giving weight and speed of engine; also tractor grader, 10 and 12-ft. cut; state weight of each size and delivery; above for Dist. No. 1.

Roasting Machinery (Coffee).—P. G. Bowman, Sumter, S. C.—Prices on equipment for coffee-roasting plant, small capacity.

Seating.—See Art Glass.—Rev. C. B. Burns.

Seating.—See Building Materials.—Rev. C. E. Snowden.

Sewer Construction.—City of Tulsa, Okla., H. H. Wyss, City Engr.—Bids until June 7 to construct sanitary sewer in Dist. No. 123; plans, profiles and specifications on file with City Engr.

Sewer Construction.—City of Wilburton, Okla., E. M. Cooper, Mayor.—Bids until June 4 to construct sanitary sewers and sewage-disposal plant; plans on file with City Clerk; Mackintosh-Walton Co., Engr., Oklahoma City.

School Desks.—R. Amos, Allport, Ark.—Prices on desks for \$15,000 school building.

Shovel (Steam).—Jewel Supply & Equipment Co., 31 S. Calvert St., Baltimore, Md.—Model 28 Marion steam shovel; rent or purchase.

Staves (Cement; Salt-glazed Clay).—Booth & McLeod, 134 N. Main St., Sumter, S. C.—Addresses of manufacturers of cement staves, and salt-glazed clay staves or tiling for building silos.

Stave Machines (Sawing; Jointing).—Platt & Co., Onancock, Va.—Prices on 20-in. Whitney stave-sawing machine and Oram slack stave jointer.

Steel Castings, Electric Cable and Wire, etc.—Panama Canal, Earl I. Brown, Gen. Purchasing Officer, Washington, D. C.—Bids until June 15 to furnish track spikes, nails, rail frogs, steel castings, spring plates, driving springs, electric cable and wire, hinges, locks, door bolts, screw eyes, cup hooks, grommets, bed knobs, battery zines, detonators, transformers, electric motors, fiber duct, sea anchors, distress outfits, fire extinguishers, lanterns, lamp chimneys, window glass, snatch blocks, buckets, sprinkling cans, brooms, coal baskets, tool handles, leather, rubber gaskets, railway flags, railway bunting, celluloid cases, matches and crayons; blanks, etc., relating to circular (No. 1147) obtainable at this office or offices Asst. Purchasing Agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and Fort Mason, San Francisco; also from United States Engr. offices throughout United States.

Steel (Sheet) and Steel Billets.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on 800,150 lbs. steel billets, schedule 1162, delivery Brooklyn, and flat galvanized sheet steel, schedule 1170, delivery Philadelphia.

Sweet Potato Machinery.—See Canning Machinery, etc.—R. L. Walker.

Syrup Machinery (Sugar Cane).—R. L. Walker, Farm Product Exchange, Macon,

Ga.—Data and prices on machinery for refining and canning sugar-cane syrup.

Tank or Tank Car (Oil).—Ben. Fox Cooperage Co., 306 First Ave., North, Nashville, Tenn.—Tank car or tank on wheels, to be used for oil; all requirements Interstate Commerce law.

Tile.—See Building Materials.—Rev. C. E. Snowden.

Tiling.—See Staves (Cement; Salt-glazed Clay).—Booth & McLeod.

Trucks.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on motor truck, schedule 1171, delivery New York or Mare Island; three 2-ton battery crane trucks, schedule 1168, delivery Washington.

Tubes.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids on 19,000 lbs. admiralty metal, condenser tubes and 3040 lbs. condenser sheet tube, schedule 1170, delivery Mare Island.

Wagon (Safe).—Ben. Fox Cooperage Co., 306 First Ave., North, Nashville, Tenn.—8 to 10-ton safe wagon; second-hand preferred.

Washing (Coal) Machinery.—South & West Coal & Coke Co., Charlotte, N. C.—To correspond with manufacturers of coal-washing machinery; preferably small or portable washers.

Wharf Work.—City of Chattanooga, Tenn. Bids until June 2 to construct stone wall and wing dams at city wharf, to include excavation, backfilling and concrete coping; work under supervision of J. D. Alsop, Archt., 1102 James Bldg., Chattanooga; to correspond with manufacturers of plans and specifications on file with Mr. Alsop.

Wheelbarrows.—See Contractors' Equipment.—American Tobacco Co.

Winches (Electric).—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 5 for delivering electrically-driven deck winches at navy-yard, Portsmouth, N. H. Apply for proposals to supply officer, navy-yard, Portsmouth, or to Bureau.

Woodworking Machinery.—Salem Foundry & Machine Works, Salem, Va.—Prices on woodworking machinery. (See Ironworking Machinery, etc.)

RAILROAD CONSTRUCTION

RAILWAYS

Fla., Tampa.—Tampa, Atlanta & Gulf Railroad Co. expects to begin construction this summer of its proposed line from either Sand Key or Long Key via Tarpon Springs, Tampa, Gary, Punta Gorda, Lake Okechobee and Fort Lauderdale, 225 mi., to the eastern coast of Florida, the route including also Labelle, Citrus Center and Moore Haven. Right of way has been obtained and contracts will be let by the general construction company in charge of the work. Edward Walker of Tampa is Secy.-Treas. Other officers are: Prest., J. B. Walker of New York; Vice-Prest., F. H. Williams of Tampa; Chief Engr., C. G. Young of New York. Directors: Henry C. Long of Boston; P. L. Cooper of Tampa; besides J. B. Walker, Edward Walker and F. M. Williams.

Ky., Dawson Springs.—Illinois Central R. R. will build cut-off line from Dawson Springs to Providence, Ky., 45 mi. A. S. Baldwin, Chicago, Ill., is Ch. Engr.

Ky., Princeton.—Illinois Central R. R. will reduce grades and improve alignment on 55 mi. of line from Princeton to Central City, Ky., in addition to building second track.

Ky., Whitesburg.—Louisville & Nashville R. R. proposes to build 3-mi. spur from Kona Station to mines of the Detroit-Elk Coal Co. of Lexington, Ky. H. C. Williams, Louisville, is Engr. of Constr. for the railroad.

Md., Baltimore.—Baltimore & Ohio R. R. has obtained right of way for its proposed branch from Sparrows Point, Md., about 8 mi., and construction is expected to begin soon. R. N. Begien, Baltimore, is Ch. Engr.

Md., Baltimore.—Plans have been prepared by R. M. Cooksey, City Highways Engr., for an extension of the Municipal Railroad from Key Highway via Light and Pratt Sts. and East Falls Ave. to Aliceanna St., and thence to a point east of President St., about 6800 linear ft. altogether. Bids received until 11 A. M. June 6.

Md., Chestertown.—Construction of a standard-gauge, double-track electric railway from Wilmington, Del., to Easton, Md., about 75 mi., is proposed. Route via Newark, Del.; Elkton, Chestertown and Centerville, Md. John G. Gray, attorney-at-law, Market and

10th Sts., Wilmington, Del., may give further information.

Miss., Jackson.—Philbrick & Baxter of Jackson have been given a contract by the Illinois Central R. R. Co. to grade 23 mi. of the Yazoo & Mississippi Valley line for second-track construction. Work is in two sections, viz., Marietta to Pritchard, Miss., 12 mi., and Gwin to Cruger, Miss., 11 mi.

Miss., Leakesville.—Final decision as to the immediate construction of the proposed extension from Leakesville toward Laurel, Miss., 38 mi., has not yet been made by the Alabama & Mississippi Railroad Co., but it may be announced this summer. N. E. Turner, Vinegar Bend, Ala., is Prest.

N. C., Selma.—Southern Ry. has let contract to H. C. McCrary of Knoxville, Tenn., for its new freight yard and engine terminal at Selma, consisting of six tracks, total capacity 600 cars, including grading and track work.

Tenn., Chattanooga.—Nashville, Chattanooga & St. Louis Railway contemplates building a branch from Graysville, Ga., to Fort Oglethorpe, about 4½ mi. Hunter McDonald, Nashville, Tenn., is Chief Engr.

Fla., Homestead.—Florida East Coast Ry. denies report that it proposes to build from Homestead to Cape Sable. There is nothing new in the way of line construction at present.

Tex., Orange.—The railroad which the city of Orange proposes to build is a municipal spur track 1 mi. long, connecting with the Southern Pacific and the Frisco lines. Bids will be opened June 1. Address E. A. Henry, Orange.

Tex., Rosenberg.—Gulf, Colorado & Santa Fe Ry. is reported surveying preliminary to building a branch from Rosenberg or nearby to the new Damons Mound oil field, 20 or 25 mi. F. Merritt, Galveston, Tex., is Ch. Engr.

STREET RAILWAYS

Tenn., Chattanooga.—Chattanooga Ry. & Light Co. has begun construction of 2-mi. extension to Chickamauga Park. E. D. Reed is Gen. Supt.

Va., Norfolk.—Virginia Railway & Power Co. contemplates construction of several new double track lines and also some single track. E. C. Hathaway is Asst. Gen. Mgr.

Seventh Annual Report of the Norfolk Southern Railroad Co.

FISCAL YEAR ENDED DECEMBER 31, 1916

To the Stockholders of the Norfolk Southern Railroad Company:

The Board of Directors submits the following report of the operation of your properties for the year ended December 31, 1916:

Norfolk, Va., February 28, 1917.

	Steam Division.				Electric Division.				Combined Steam and Electric Division.			
	1916.	1915.	Increase.	Decrease.	1916.	1915.	Increase.	Decrease.	1916.	1915.	Increase.	Decrease.
Mileage Operated.....	862.89	862.89			44.82	44.82			907.71	907.71		
Total Operating Revenues.....	\$4,673,780 08	\$3,904,299 38	\$769,480 70		\$265,392 30	\$231,047 51	\$34,344 60		\$4,939,172 28	\$4,135,346 89	\$803,825 29	
Total Operating Expenses.....	3,035,996 59	2,802,907 15	233,189 44		236,203 26	218,452 12	17,751 14		3,272,199 85	3,021,359 27	250,840 58	
Net Operating Revenues.....	\$1,637,783 49	\$1,101,492 23	\$536,291 26		\$29,188 94	\$12,595 39	\$16,593 55		\$1,666,972 43	\$1,114,087 62	\$552,884 81	
Uncollectible Railway Revenue.....	3,819 00	217 14	3,601 86						3,819 00	217 14	3,601 86	
Taxes Accrued.....	150,210 73	127,921 66	22,289 07		9,790 00	8,584 45	1,115 55		159,910 73	136,506 11	23,404 62	
Operating Income.....	\$1,483,753 76	\$973,353 43	\$510,400 33		\$19,488 94	\$4,010 94	\$15,478 00		\$1,593,242 70	\$977,264 37	\$615,978 33	
Other Income.....	377,464 83	310,535 72	66,929 11		1,393 92	22,902 83	4,386 75		378,858 75	307,542 89	71,315 86	
Gross Corporate Income.....	\$1,861,218 59	\$1,283,889 15	\$577,329 44		\$20,882 86	\$1,018 11	\$19,864 75		\$1,972,101 45	\$1,284,807 26	\$687,294 19	
Rent for Leased Roads Accrued.....	\$76,866 00	\$77,926 00		\$1,060 00					\$76,866 00	\$77,926 00		\$1,060 00
Interest on Funded Debt Accrued.....	866,515 87	867,409 25		893 38					866,515 87	867,409 25		893 38
Other Deductions.....	430,226 94	330,067 63	\$100,159 31		\$2,981 56	\$3,084 06		\$103 10	433,208 50	333,152 29	\$100,056 21	
Total Deductions.....	\$1,373,608 81	\$1,275,402 88	\$98,205 93		\$2,981 56	\$3,084 06		\$103 10	\$1,376,590 37	\$1,278,487 54	\$98,102 83	
Net Corporate Income.....	\$487,609 78	\$3,486 27	\$179,123 51		\$17,901 30	\$23,066 55	\$19,067 85		\$605,511 08	\$6,419 72	\$599,091 36	
Operating Ratio.....	64.96	71.79	*6.83		89.00	94.55	5.55		66.25	73.06	6.81	
Operating Ratio, Including Taxes.....	68.17	75.06	*6.89		92.06	98.26	6.20		69.49	76.36	6.87	

*Includes Credits account Hire of Equipment of \$320,732.59 for 1916 and \$250,304.58 for 1915.
 *Includes Debits account Hire of Equipment of \$376,170.67 for 1916 and \$270,737.26 for 1915.
 *Deficit.

CHANGE IN FISCAL YEAR.

On November 24, 1916, the Interstate Commerce Commission issued an order requiring all common carriers to thereafter file with them annually a report for the period of twelve months ending with the 31st day of December, containing the particulars called for in the annual report previously required. As the annual reports rendered by this Company to the Interstate Commerce Commission as well as to the Stockholders have heretofore been for the period from July 1st to June 30th, your Directors deemed it proper to change the fiscal year so as to avoid the confusion and unnecessary work of rendering a report to the Commission for one period and to the Stockholders for another period.

The change in the fiscal year made it necessary that the date of the annual meeting of the Company be changed, and your Directors at a meeting held January 31st, 1917, amended the By-laws making the date of the annual meeting the second Wednesday in March of each year instead of the second Wednesday in October.

MILEAGE OPERATED.

The mileage operated December 31st (all lines) was as follows:

	Main Line.	Second Track.	Sidings.	Total.
Owned.....	794,039	9,498	161,110	964,647
Leased.....	108,334		26,705	135,039
Total.....	902,373	9,498	187,815	1,099,686
Trackage Rights—Main Line.....	5,340	1,230		6,570
Total Operated.....	907,713	10,728	187,815	1,106,256

INCOME STATEMENT (STEAM LINES).

A gradual improvement in business conditions in the territory traversed by your lines began to manifest itself in the early Fall of 1915, and the volume of traffic since handled has shown a steady and substantial increase each month over the corresponding month of the previous year. As the following statements show, operating revenues increased \$769,480.70, or 19.71%, over the previous year, and operating expenses increased \$233,189.44, or 8.32%, while operating income increased \$510,400.33, or 52.44%.

	Operating Revenues.		Increase or Decrease.		Per Cent.
	1916.	1915.	Increase.	Decrease.	
Freight.....	\$3,366,857 41	\$2,777,172 69	\$589,684 72		21.23
Passenger.....	1,921,426 59	895,541 94	1,025,884 65		114.77
Miscellaneous Passenger Train Revenue.....	12,372 75	10,116 74	2,256 01		22.30
Mail.....	71,827 94	65,819 04	6,008 90		9.13
Express.....	110,124 81	93,272 84	16,851 97		18.07
Other Transportation Revenue.....	42,701 34	47,835 67	*5,134 33		*10.73
Other Revenue from Operation.....	48,469 33	40,540 46	7,928 87		19.56
Total Operating Revenues.....	\$4,673,780 08	\$3,904,299 38	\$769,480 70		19.71
	Operating Expenses.		Increase or Decrease.		Per Cent.
	1916.	1915.	Increase.	Decrease.	
Maintenance of Way and Structures.....	\$564,719 46	\$515,730 39	\$48,989 07		9.50
Maintenance of Equipment.....	671,291 76	564,482 49	106,809 27		18.90
Traffic.....	90,029 18	82,842 07	7,187 11		8.68
Transportation.....	1,592,350 24	1,428,683 52	163,666 72		11.46
General.....	207,995 95	211,068 68	*3,072 73		*1.44
Total Operating Expenses.....	\$3,035,996 59	\$2,802,907 15	\$233,189 44		8.32
Net Operating Revenue.....	\$1,637,783 49	\$1,101,492 23	\$536,291 26		48.69
Taxes Accrued.....	150,210 73	127,921 66	22,289 07		17.42
Uncollectible Railway Revenue.....	3,819 00	217 14	3,601 86		1642.30
Operating Income.....	\$1,483,753 76	\$973,353 43	\$510,400 33		52.44
Ratio of Operating Expenses to Operating Revenues.....	64.96	71.79	*6.83		*9.51
Ratio of Operating Expenses and Taxes to Operating Revenues.....	68.17	75.06	*6.89		*9.18

*Denotes Decrease.

OPERATING REVENUES AND STATISTICS (STEAM LINES).

A comparison of the gross operating revenues per mile of road for the past fiscal year with each of the four previous years is as follows:

	1916.	1915.	1914.	1913.	1912.
\$5,416.43	\$4,524.68	\$4,485.17	\$4,917.51	\$4,856.19	

The gross operating revenues per mile of road of the new lines between Virginia and Colon, and Mount Gilead and Charlotte, which were placed in operation on July 1st and December 1st, 1913, respectively, were much less than those of the old lines, the effect of which is shown in a comparison of the years 1914 and 1915 with the two preceding years, although this falling off in gross operating revenues was partly due to the general depression in business.

FREIGHT TRAFFIC.

The improved commercial conditions and the agricultural and industrial development in the territory traversed by your road resulted in a substantial increase in the movement of freight traffic, the revenue from which increased \$589,684.72, or 21.23 per cent., as compared with the previous year.

The number of tons of freight carried increased 514,731, or 24.2 per cent.

The number of tons carried one mile increased 58,331,958, or 29.4 per cent.

The average haul of each ton of freight was 97.31 miles, compared with 93.43 miles for the previous year, an increase of 3.88 miles, or 4.2 per cent.

The average amount received from each ton of freight carried was \$1.28, compared with \$1.21 the previous year, a decrease of 5c., or 2.3 per cent.

Freight train revenue per train mile increased 10.4 per cent.

The average number of tons per train mile was 266.56, compared with 226.16 for the year 1915, an increase of 40.40 tons, or 17.85 per cent.

The average number of tons per loaded car mile was 16.44, compared with 15.12 for the previous year, an increase of 1.32, or 8.7 per cent.

The following statement shows the percentage of the total of each class of tonnage handled:

Products of agriculture.....	10.5 per cent.
Products of animals.....	6 per cent.
Products of mines.....	25.5 per cent.
Products of forest.....	39.3 per cent.
Manufactures.....	11.1 per cent.
Miscellaneous commodities not specified above and less carload goods of all classes.....	13.0 per cent.
Total.....	100 per cent.

While there was an increase over the previous year of 8.7 per cent. in the number of tons of forest products moved, the increase in the movement of other commodities was so large that the percentage of the total tonnage handled was only 39.3 per cent., compared with 44.9 per cent. for the year of 1915.

PASSENGER TRAFFIC.

The total revenue from passengers carried increased \$151,884.56, or 17.47 per cent. The movement of this class of traffic resumed normal conditions during the year.

The number of passengers carried was 1,611,211, an increase of 254,221, or 18.7 per cent.

The average distance each passenger was carried was 28.77 miles, a decrease of 0.36 miles, or 1.2 per cent.

The average revenue per passenger per mile was 2.306c., an increase of .006c., or 0.27 per cent.

Passenger train revenue per train mile was 95c., an increase of 12c., or 14.5 per cent.

The average number of passengers per train mile was 36, an increase of 4, or 12.5 per cent., and the average number of passengers per car mile was 11, an increase of 1, or 10 per cent.

TRAFFIC EXPENSES.

Traffic expenses increased \$7,187.11, or 8.68%, the ratio to total operating revenues being 1.93%, compared with 2.12% for the previous year.

TRANSPORTATION EXPENSES.

Transportation expenses increased \$73,666.75, or 5.16%, the ratio to total operating revenues being 32.15%, compared with 36.59% for the previous year.

GENERAL EXPENSES.

General expenses decreased \$3462.73, or 1.64%, the ratio to total operating revenues being 4.44%, compared with 5.41% for the previous year.

TOTAL OPERATING RATIO.

The ratio of total operating expenses to total operating revenues was 64.96%, compared with 71.79% for the previous year.

INDUSTRIAL TRACKS.

Twenty-seven industrial tracks were installed during the year and extensions were made to five other tracks that were already serving industries. It is estimated that these industries will yield your Company \$120,000.00 additional revenue annually. Ten new industries were located along existing side tracks, the estimated annual revenue from which is \$37,000.00. The improvement in industrial development during the year is strikingly illustrated by a comparison with the previous year of the estimated revenue your Company should receive per annum from new industries located on your line, which for the year 1916 was \$157,000.00 and for the year 1915 \$65,000.00.

AGRICULTURAL DEVELOPMENT.

Development along agricultural lines continues to make marked progress. Several large tracts of land were sold during the year for the purpose of development, the most prominent of which was the purchase by one Company of approximately 45,000 acres in Washington and Beaufort Counties, North Carolina, along the Belhaven Branch of your line, for farming and stock raising. The development of this tract involves the digging of approximately 175 miles of drainage ditches. In this vicinity 113,000 acres of swamp lands are now being drained and developed. An additional tract of 22,000 acres is being developed on the Oriental Branch. Reference was made in the last report issued to the 37,000-acre tract in the vicinity of Beaufort, which is now being drained and put in a condition for settlers.

ADDITIONS AND BETTERMENTS.

The following additional equipment was purchased during the year:

- 6 Consolidation Locomotives.
- 49 Ballast Cars.
- 1 Officers' Car.
- 1 7,000-gallon Tank Car.
- 98 Steel Gondola Cars.
- 2 Air Dump Cars.
- 1 Steam Shovel.
- 1 Motor Car.

Improved shop facilities have been provided at Newbern to replace those burned during the night of November 16th, 1915.

Since the close of the year the new locomotive and car repair shops at Carolina Junction have been completed and placed in operation.

Several months ago the North Carolina Corporation Commission ordered your Company and the Atlantic Coast Line to construct a union passenger station at Kinston, N. C. The land necessary for this purpose has been purchased and contract will be let at an early date for the construction of the station.

Additional land was purchased at Asheboro during the year for station facilities and contract was let for their construction. At this point your Company has heretofore used the station of the Southern Railway Company for the handling of its freight and passenger business.

Facilities for providing a better system of water supply and fire protection at Glenwood Yard, Raleigh, N. C., were completed during the year.

Additional land was purchased at Carolina Junction, Va., for new shops and tracks; at Glenwood, N. C., and Suffolk, Va., for "Y" tracks, and at Wilson, N. C., for station facilities.

A lumber storage shed has been erected at Newbern.

Contracts were let during the year for widening the draw in the Gallants Channel bridge, near Beaufort, from thirty to sixty feet, and for installing an enlarged fender system at the Morehead City Drawbridge in Newport River Channel, to comply with the requirements of the War Department.

New stations were erected or extensions made to existing facilities at the following points:

- Caswell, N. C.—Covered platform erected.
- Kinston, N. C.—Cotton platform erected.
- Arthur, N. C.—Station enlarged.
- Wilson, N. C.—Automobile platform erected.
- Greenville, N. C.—Covered platform erected.
- Asheboro, N. C.—Cotton platform erected.
- Pinehurst, N. C.—Additional covered platform erected.
- Maple Run, Va.—Loading platform erected.
- Shelton, Va.—Station platform extended.
- Greenwich, Va.—Loading platform erected.
- Holles, Va.—Loading platform erected.
- Beechwood, Va.—Shed erected over platform.

The accounts for the fiscal year examined by Messrs. Lybrand, Ross Brothers & Montgomery, certified public accountants, and their certificate and balance sheet are made a part of this report.

Attention is called to the following Financial and Statistical Tables:

1. Investment in Road and Equipment.
2. Revenues and Operating Expenses, classified by months.
3. Operating Expenses in detail.
4. Traffic Statistics.
5. Freight Traffic Statistics by months.
6. Passenger Traffic Statistics by months.
7. Classification of Tonnage.
8. Train, Car and Locomotive Mileage.
9. Locomotive and Train Mileage.
10. Car Mileage Statistics.
11. Equipment.
12. Material and Supplies.
13. Operating Mileage.

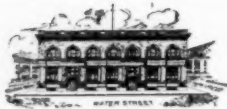
Report of the operation of the John L. Roper Lumber Company, all the capital stock and bonds of which are owned by your Company, is found on page 32 of pamphlet report.

The President and Directors again wish to acknowledge their appreciation of the faithful and efficient services rendered by the officers and employees during the year.

Respectfully submitted by order of the Board.

J. H. YOUNG,
President.

Capital and Surplus
\$4,000,000



Total Resources
\$38,000,000

The Largest National Bank in the South

Liberal Accommodations to Manufacturing Corporations

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Hopkins Place, German and Liberty Sts.
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March 30, 1915, Surplus and Profits,
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OFFICERS:
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R. VINTON LANSDALE, Cashier.
C. G. MORGAN, Asst. Cashier.
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

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Capital \$1,000,000
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BANKING BUSINESS
Correspondence and interviews
invited

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Chas. Warner Smith, Vice-President.
Harry W. Davis, Secretary and Treasurer.
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to Congress
April 2, 1917

Proclamation of the President
April 6, 1917

Proclamation of the Mayor of the
City of New York
April 6, 1917

Address of the President to His
Fellow-Countrymen
April 16, 1917

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FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

FINANCIAL CORPORATIONS

Ala., Birmingham.—J. E. Ellis Investment Co. Incptd.; capital \$200; J. E. Ellis, Pres.; E. C. Avery, Secy. and Treas.

Ala., Birmingham.—Globe Securities Co., capital \$5000, has filed articles of incorporation; E. F. Enslen, Pres. and Treas.; John T. Enslen, V.-P., and E. W. Shackelford, Secy.

Ark., McGehee.—Citizens State Bank chartered, capital \$50,000. R. H. Wolfe, Pres.; Dean R. Morley, V.-P.; D. O. C. Cleveland, Cashier. Business has begun.

Fla., Jacksonville.—United States Mortgage & Bond Co. is organized with \$50,000 capital.

La., Oakdale.—Calcasieu National Bank, Lake Charles, has purchased the business and all assets of the Oakdale State Bank, absorbing the business and incorporating with its own present business, operating under the name of the "Calcasieu National Bank of Southwest Louisiana, Oakdale branch."

Mo., Kansas City.—Liberty National Bank, capital \$1,000,000, surplus \$200,000, is being organized with W. J. Johnson, Chrmn. of Board; J. M. Moore, Pres.; Charles H. Moore, V.-P.; James F. Meade, Cashier. Business is expected to begin about July 1.

N. C., Raleigh.—Morris Plan Bank, capital \$50,000, expects to begin business June 15. E. C. Duncan, Pres., and A. W. White, Secy. and Treas.

Okla., Bartlesville.—The Musselman Abstract Co., capital \$3000, incptd. by M. W. Musselman, Asa Musselman and J. A. Rawlings.

Okla., Commerce.—A State bank capitalized at \$25,000 is chartered. J. B. Milam of Chelsea is one of the organizers.

Okla., Cushing.—Farmers' Guaranty State Bank is authorized to do business; capital \$10,000.

Okla., Okmulgee.—Central National Bank of Okmulgee chartered; capital \$100,000.

Tex., Ambrose.—Farmers Guaranty State Bank is authorized to begin business, capital \$10,000. O. T. Sanford, Jr., Pres.; G. W. Ratliff, Jr., Cash.

Tex., Cedar Bayou.—First National Bank of Cedar Bayou has made application for charter, capital \$25,000.

Tex., Flynn.—Guaranty State Bank, capital \$10,000 is authorized to begin business. O. Wiley, Jr., Pres.; B. F. Payne, Jr., Cash.

Tex., Lorenzo.—First State Bank is authorized to begin business, capital \$25,000. W. E. McLaughlin, Pres.; F. M. McLaughlin, Cash.

Tex., Lubbock.—Farmers National Bank of Lubbock is chartered; capital \$50,000.

Tex., Matador.—First National Bank is chartered; capital \$30,000.

Tex., Munday.—First State Bank is authorized to do business; capital \$25,000; N. Duval, Pres.; J. A. Wilson, Cash.

Tex., Seguin.—Citizens' State Bank is authorized to do business; capital \$35,000; Wm. E. Blumberg, Pres.; Henry E. Draegel, Cash.

Tex., Tell.—First State Bank is authorized to do business; capital \$10,000; C. N. Crews, Pres.; Joe H. Ward, Cash.

NEW SECURITIES

Ala., Mobile.—(Telpher System).—Election is to be held June 25 to vote on \$55,000 of 5 per cent. Telpher System bonds. Harry Pillans is Mayor.

Ala., Selma.—(School).—Election to vote on \$40,000 of 1-25-year 4 or 5 per cent. bonds, postponed until June 21. H. H. Stewart, City Clerk.

Ark., Casn—(School).—\$10,000 of bonds are voted. Address School Board.

Ark., Jonesboro—(Drainage).—All bids received May 24 for the \$300,000 of Cache River Drainage Dist. bonds were rejected. Bonds will again be offered when market conditions are settled. A. W. Hall is Secy. Drainage Board.

Ark., Magnolia—(School).—School Board of Magnolia Special School Dist. contemplates issuing \$30,000 of bonds.

Ark., Newport—(Road).—Bids will be received until noon June 8 by Commrs. Road Improvement Dist. No. 1, Jackson County, for \$75,000 of 5-20-year bonds. Gustave Jones is Atty.

Fla., Jacksonville—(Bridge).—Election is to be held July 9 to vote on bonds for bridge over St. Johns River. Address The Mayor.

Fla., Mayo—(Road, Bridge).—Bids will be opened July 2 for \$250,000 of 5 per cent. \$1000, \$500 and \$10,000 denomination bonds Dixie Highway Special Road & Bridge Dist., Lafayette County. Cullen W. Edwards is Clk. Circuit Court.

Fla., Miami—(Sewer, Hospital, Warehouse, Bridge, etc.).—Bids will be opened July 5 for \$75,000 sewer, \$50,000 city hospital, \$40,000 municipal warehouse, \$40,000 municipal railway, \$25,000 park and \$10,000 bridge 5 per cent. 20-year \$1000 denomination bonds. C. H. Reeder is City Auditor.

Fla., Orlando—(Road).—\$40,000 of bonds Special Road Dist. No. 1, Orange County, are voted. Address County Commrs.

Fla., Orlando—(Paving, Municipal Building).—\$70,000 paving and \$30,000 municipal building bonds defeated. James L. Giles is Mayor.

Fla., Pensacola—(Bridge).—Application is to be made to the Legislature for authority to issue \$100,000 of Escambia County bonds. Address Board of Commrs.

Fla., St. Petersburg—(City Improvement).—Bids will be opened 2 P. M. June 15 for \$180,000 of bonds. Address The Mayor.

Fla., Tampa—(Road, Bridge).—\$30,000 of 6 per cent. 20-year \$1000 denomination bonds Bay Shore Bridge & Road Dist., Hillsborough County, have been purchased by the Hanchett Bond Co., Chicago.

Ga., Bostwick—(School).—\$10,000 bonds recently voted are 5 per cents. Address R. E. L. Snelson.

Ga., Camilla—(School).—Bids will be received until noon June 12 for \$5500 of 6 per cent. 20-year Hopeful School Dist., Mitchell County, bonds. C. B. Cox is Secy. Bd. of Trustees. Further particulars will be found in the advertising columns.

Ga., Griffin—(Street).—\$45,000 of 4½ per cent. 12-30-year street improvement bonds have been purchased by the Trust Co. of Georgia, Atlanta.

Ky., Ashland—(School).—Bids will be received until 7 P. M. June 4, by W. A. Manning, City Clk., for \$100,000 of 4½ per cent. \$500 denomination bonds, dated June 1, 1917; maturity June 1, 1918 and each successive year thereafter until entire issue has been fully paid. Wm. Salisbury is Mayor and W. A. Manning, Clk.

Ky., Owensboro—(Street).—\$30,000 of 6 per cent. 1-10-year street improvement bonds have been purchased at par by the Sinking Fund Commrs. J. H. Hickman is Mayor.

Ky., Paducah—(Light).—Election will probably be held to vote on \$185,000 of bonds for improving electric-light plant. Address The Mayor.

Ky., Paris—(School).—Election to vote on \$46,000 of bonds will be held June 2. W. O. Hinton is Chmn. Finance Committee.

La., Alexandria—(Road).—Bids will be received until noon June 20 for \$75,000 of 5 per cent. bonds Road Dist. No. 14, Rapides Parish. Address Board of Supervisors, T. W. Barrett, Prest.

La., Cameron—(Road).—\$13,000 of 24-year bonds Road Dist. No. 1, Cameron Parish, are voted. Address Police Jury.

La., Coffeerville—(Road).—\$45,000 of 5 per cent. 10-year Yalobusha County bonds have been purchased by Powell, Garard & Co., New Orleans.

La., Marksville—(Road).—\$120,000 of 5 per cent. Road Dist. No. 16, Avoyelles Parish, bonds have been purchased by Powell, Garard & Co., New Orleans, through the Central Bank & Trust Co., Mansura, La.

La., Morgan City—(School).—\$60,000 of bonds are voted. Address School Board.

La., Opelousas—(Drainage).—\$70,000 of 5 per cent. 1-40-year \$500 denomination bonds Bayou Mallet and Plaquemine Drainage Dist., St. Landry Parish, have been purchased at \$67,900 by Opelousas National Bank of Opelousas.

La., Plaquemine—(Drainage).—Election is to be held June 26 to vote on \$115,000 of 5 per cent. 25-year bonds Lake Long Drainage Dist., Iberville Parish. Joseph A. Grace is Secy. and E. J. Gay, Prest. (Recently noted.)

Md., Rockville—(County Bonds).—Bids will be received until noon June 5 for \$5000 of 4½ per cent. 20-year denomination Montgomery County bonds. John R. Lewis is Prest. Board County Commrs. and Perry E. Clark Clerk.

Miss., Arkabutla—(School).—\$17,500 of 6 per cent. Arkabutla Consolidated School Dist., Tate County, bonds have been purchased at \$605 premium by the People's Bank of Senatobia.

Miss., Indianola—(Armory).—\$5000 of 5½ per cent. 20-year bonds have been purchased by Powell, Garard & Co., New Orleans.

Miss., Liberty—(Road).—\$80,000 of bonds

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306-307 Kanawha National Bank

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Westinghouse Electric & Manufacturing Company

And Its Proprietary Companies in the United States

(Except New England Westinghouse Company.)

Consolidated and Condensed Comparative General Balance Sheet, March 31, 1917.

ASSETS.		March 31, 1917	March 31, 1916
PROPERTY AND PLANT.....		\$22,701,110 02	\$21,201,304 59
SINKING FUND.....		706 25	706 25
INVESTMENTS.....		18,156,577 43	15,662,751 83
CASH on deposit for redemption of Matured Debenture Certificates, Bonds, Notes and for Interest and Dividends—See Contra.....		12,476,320 35	8,184,941 43
NOTES RECEIVABLE.....		149,254 32	1,321,615 35
ACCOUNTS RECEIVABLE.....		4,935,511 06	2,546,813 47
WORKING AND TRADE ASSETS.....		32,757,631 71	9,811,217 13
OTHER ASSETS.....		31,934,594 79	18,850,947 33
Total.....		\$127,542,810 99	\$82,432,945 94
LIABILITIES.		March 31, 1917	March 31, 1916
CAPITAL STOCK:			
Preferred.....		\$3,998,700 00	\$3,998,700 00
Common.....		70,813,950 00	52,644,800 00
Total Capital Stock.....		\$74,812,650 00	\$56,643,500 00
FUNDED DEBT:			
Convertible Sinking Fund, 5% Gold Bonds, due January 1, 1931. Outstanding.....		2,720,000 00	2,720,000 00
LONG TERM NOTES.....		83,750 00	96,250 00
REAL ESTATE PURCHASE MONEY MORTGAGE.....		180,000 00	210,000 00
NOTES PAYABLE—BANK LOANS.....		15,100,000 00	15,100,000 00
ACCOUNTS PAYABLE.....		5,988,180 82	4,503,369 72
INTEREST, TAXES, ROYALTIES, ETC., ACCRUED, NOT DUE.....		2,470,164 29	675,156 44
DIVIDENDS ACCRUED.....		1,309,221 38	859,649 25
ADVANCE PAYMENTS ON CONTRACTS.....			2,111,035 72
UNPAID DEBENTURE CERTIFICATES, BONDS, NOTES AND INTEREST AND DIVIDENDS—SEE CONTRA.....		149,254 32	1,321,615 35
RESERVE.....		6,624,291 52	762,662 43
PROFIT AND LOSS—SURPLUS.....		18,105,298 66	9,246,707 03
Total.....		\$127,542,810 99	\$82,432,945 94

Consolidated and Condensed Statement of Income and Profit and Loss for the Year Ended March 31, 1917.

(Except New England Westinghouse Company.)

Income Account for Year:		Statement of Profit and Loss Account:	
Sales Billed.....	\$89,539,442 09	Profit and Loss—Surplus, March 31, 1916.....	\$9,246,707 03
Cost of Sales.....	72,077,751 53	Net Income for Year.....	18,079,888 83
Net Manufacturing Profit.....	\$17,461,690 56	Gross Surplus.....	\$27,326,595 86
Other Income.....	1,386,546 57	Profit and Loss Charges:	
Gross Income from All Sources.....	\$18,848,237 13	Preferred Dividends.....	\$279,909 00
Deductions from Income—Interest Charges.....	768,348 30	Common Dividends.....	3,750,000 02
Net Income Available for Dividends and Other Purposes.....	\$18,079,888 83	Appropriation to Reserve Account.....	5,000,000 00
		Miscellaneous (Net).....	191,388 18
		Surplus March 31, 1917, per Balance Sheet.....	\$18,105,298 66

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BALTIMORE, MD.

Road Dist. No. 3, Amite County, are voted. Address County Commrs.

Miss., Mendenhall—(Highway).—\$60,000 of 5% per cent. Central Highway Road Dist., Simpson County, bonds have been purchased by Powell, Garard & Co., New Orleans.

Miss., Yazoo City—(Drainage).—\$12,000 of 6 per cent. bonds Willis Creek Drainage Dist. have been purchased at \$500 premium by the Delta Bank & Trust Co., Yazoo City.

Mo., Caruthersville—(School).—Bids will be received until 7 P. M., May 28, for \$45,000 of 5 per cent. 1-20-year \$500 denomination bonds. C. F. Bloner is Secy., School Board.

N. C., Asheville—(Funding).—Bids will be received until noon June 20 for \$55,000 of 5 per cent. \$1000 denomination bonds, dated May 1, 1917, and maturing May 1, 1918 to 1927, inclusive. F. L. Conder is Secy.-Treas.

N. C., Charlotte—(School).—Matter of issuing \$250,000 of bonds is temporarily in abeyance. City has just floated a \$250,000 90-day note at 4.9 per cent. through the American Trust Co., a local bank. F. R. McNinch is Mayor and Commr. of Finance.

N. C., Charlotte—(Bridge).—Bids will be received until noon June 19 for \$100,000 of 5 per cent. \$1000 denomination Mecklenburg County bonds, dated July 1, 1917, and maturing July 1, 1918 to 1925, inclusive. A. M. McDonald is Chrmn. Board of County Commissioners. (Lately noted.) Further particulars will be found in the advertising columns.

N. C., Edenton—(School).—Election is to be held June 30 to vote on \$10,000 of Edenton Graded School Dist. bonds. E. R. Conger is Mayor, and J. R. McMullan, Clerk

N. C., Pembroke—(Municipal Public Improvement).—Bids will be received until noon June 19 for \$10,000 of 5 to 5½ per cent. 20-year municipal improvement bonds. Address Town Commrs., E. M. Paul, Clerk and Treas. Further particulars will be found in the advertising columns.

N. C., Raleigh—(State Bonds).—A special dispatch to the Manufacturers Record says that of the \$25,000 of State Home & Training School for Girls and Women, \$75,000 Caswell Training School and \$400,000 road building bonds, offered May 24, only \$47,000 will be awarded, to be distributed among many small bidders. B. R. Lacy is State Treas.

N. C., Raleigh—(School).—At noon June 25 Board of Education of Wake County will sell \$10,000 of Wendell Graded School Dist. 5½ per cent. 20-year bonds. D. F. Giles is Supt.

N. C., Salisbury—(Paving).—\$75,000 of 5 per cent. 10-year bonds have been purchased by Harris, Forbes & Co., New York.

Okla., Alex.—(School).—\$11,000 of 6 per cent. 20-year bonds Alex School Dist., Grady County, are reported sold. Address School Board.

Okla., Checotah—(School).—\$25,000 of bonds recently voted have been sold. Address School Board.

Okla., Hobart—(Park, Fair Site).—\$10,000 of 6 per cent. 25-year bonds recently voted have been purchased by R. J. Edwards, Oklahoma City.

Okla., Noble—(School).—\$1500 of 6 per cent. 20-year bonds School Dist. No. 44 have been purchased by W. A. Brooks, Oklahoma City.

Okla., Rush Springs—(Water).—Election June 1 to vote on \$30,000 of bonds. Address The Mayor.

Okla., Shawnee—(School).—Board of Education has voted to issue \$90,000 of bonds.

Okla., Thomas—(School).—\$30,000 of 5 per cent. 20-year bonds School Dist. No. 85 have been purchased at par by Ed. Foster, Thomas, Okla. M. K. Simpson is Prest. School Board.

Okla., Tishomingo—(School).—\$5000 of 6 per cent. 25-year \$500 denomination school district bonds have been purchased at 1.03 by E. D. Edwards, Oklahoma City, Okla.

Okla., Woodward—(School).—\$14,000 of bonds are voted. Address School Board.

S. C., Laurens—(School).—\$15,000 of bonds are voted for teachers' training school. Address School Board.

S. C., McColl—(School).—\$15,000 of bonds are voted. Address School Board.

S. C., Spartanburg—(Sewer).—Election is to be held June 12 to vote on \$40,000 of sewer bonds. J. F. Floyd is Mayor, and T. J. Boyd, City Clerk.

Tenn., Knoxville—Auditorium, Park, School).—Election is to be held July 5 to vote on \$350,000 of 5 per cent. 30-year bonds, dated July 1, 1917, as follows: Auditorium \$150,000; park \$50,000; school \$150,000. John E. McMillan is Mayor. (Lately noted.)

Tenn., Memphis—(General Liability Bonds).—\$357,000 of 5 per cent. bonds have been purchased at \$382 premium by the Harris Trust & Savings Bank, in combina-

tion with the Continental & Commercial Trust & Savings Bank.

Tenn., Nashville—(Charitable Institution, Herbert Domain).—\$300,000 of 4½ per cent. charitable institution and \$80,000 Herbert Domain improvement 4½ per cent. bonds have been purchased at \$342 and \$31.20 premiums, respectively, jointly by Redmon & Co. and National City Co., New York City.

Tenn., Paris—(Filtration Plant, School).—\$40,000 of 5 per cent. 30-year \$1000 denomination bonds are voted. Date for opening bids not yet decided. R. L. Dunlap is Chrmn. Finance Committee.

Tex., Albany—(Road).—No sale was made May 14 of the \$100,000 of 5 per cent. 40-year \$1000 denomination bonds Road Dist. No. 2, Shackelford County, dated April 10, 1917, and maturing April 10, 1957, and new bids will be received at any time. Address J. A. King, County Judge.

Tex., Austin—Bonds approved by Atty. General: \$1500 Navarro County Common School Dist. No. 87; \$35,000 of 5½ per cent. Matagorda County Road Dist. No. 8; \$1500 of 5 per cent. 1-20-year bonds Navarro County common school Dist. No. 74; \$16,000 of 5 per cent. 40-year Navarro County Road Dist. No. 7; \$3000 Dist. No. 33, and \$3000 Dist. No. 25, Falls County, 5 per cent. 5-20-year; \$1000 5 per cent. 10-20-year Erath County common school Dist. No. 27.

Tex., Bastrop—(Road).—\$150,000 of Elgin Precinct, Bastrop County, bonds defeated.

Tex., Bonham—(Road).—\$40,000 of 5 per cent. 10-40-year bonds Road Dist. No. 17, Fannin County, have been purchased at par and interest, less attorneys fees by Mathew, Dixon & Co., Springfield, Ill.

Tex., Breckenridge—(School).—\$12,000 Breckenridge Independent School Dist., Stephens County, bonds are voted. Address School Board.

Tex., Bryan—(School).—Election will probably be held to vote on \$100,000 bonds. Address School Board.

Tex., Eldorado—(Courthouse).—Bids will be received until 2 P. M. June 11 for \$60,000 of 4 per cent. 20-40-year Schleicher County bonds. Geo. M. Brown is County Judge.

Tex., Fallon—(School).—\$3000 of bonds Limestone County Common School Dist. No. 3 are voted. Address School Board.

Tex., Gonzales—(School).—\$17,500 of School Dist., Gonzales County, bonds recently voted are 20-40-year 5 per cent; denomination \$500. Date for opening bids not yet decided. Address J. C. Cochran.

Tex., Gorman—(Paving).—\$10,000 of bonds are voted. Address The Mayor.

Tex., Houston—(Road).—Election is to be held June 27 to vote on \$1,100,000 of Harris County bonds. Address County Commrs.

Tex., Leesville—(School).—\$8000 of bonds Leesville Common School Dist., Gonzales County, recently voted are 5 per cent. Denomination \$1000. Date for opening bids not yet decided. O. I. Littlefield is Secy. School Board.

Tex., McAllen—(Sewer, Street).—Election is to be held to vote on bonds. Date not yet decided. A press report recently stated that \$30,000 sewer and \$16,000 street bonds were voted. Address City Secy.

Tex., Shamrock—(Warrants).—\$12,942 of 4 per cent. warrants have been purchased by J. L. Arlitt, Austin, Tex.

Tex., Trinity—\$5998 of 6 per cent. city bonds have been purchased by J. L. Arlitt, Austin, Tex.

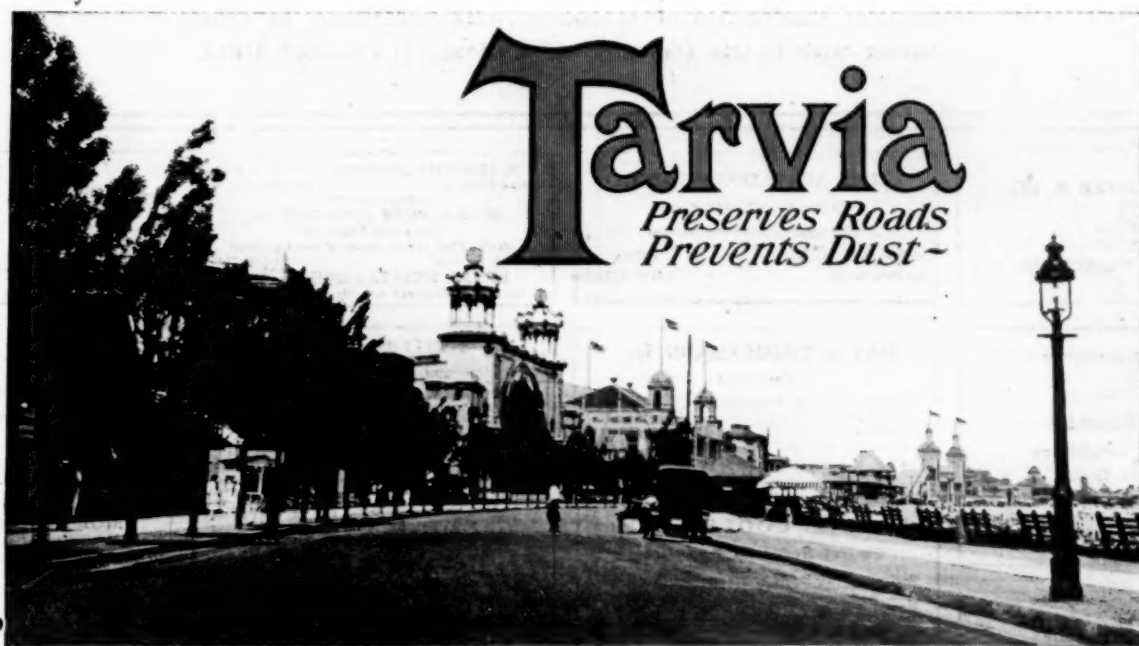
Tex., Wichita Falls—(Road).—Special Dispatch to Manufacturers Record says that \$750,000 of 5 per cent. 10-40-year \$1000 denomination Wichita County bonds are voted and bids for same will be opened about July 10. Address Judge Harvey Harris.

Va., Clifton Forge—(Playground).—City Council has authorized an issue of \$7500 of playground site purchase bonds. Address The Mayor.

W. Va., Martinsburg—(General Improvement, Paving).—Bids will be received until noon June 26 for \$195,000 of 5 per cent. 20-40-year general improvement and paving bonds, dated January 1, 1917. Denomination \$500. Jno. T. Nadenbousch is Secy. Commrs. of City. Further particulars will be found in the advertising columns.

FINANCIAL NOTES

The Maryland Bankers Association, which held its annual convention last week at Atlantic City, elected officers for the year as follows: Prest., Harry J. Hopkins of Annapolis; First Vice-Prest., Wm. S. Gordy of Salisbury (there were eight other vice-presidents chosen, representing different sections of the State); Secy., Chas. Hans; Treas., Wm. Marriot, both of Baltimore.



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Already, as shown by the names published in this page, one of the Southern States, a number of railroads and several important manufacturing interests of the South have reserved space in the Southern Opportunities Section.

Many of those throughout the North and West who are engaged in manufacturing products that require the basic raw materials of the South are not familiar with the extent of these Southern resources and how through them they are offered sources of supply that will meet all of their requirements. Since the war started and cut off the foreign supply of many basic materials and intermediates that were used in all phases of chemical manufacture, the American industries have been compelled to seek other sources of supply. It is a notable fact that these have found the raw materials of the South are fully able to supply their wants, and moreover are of a high quality.

Indeed, it has been surprising to these manufacturers who heretofore were dependent upon foreign supply that the South actually contained the raw materials they needed of a quality that they little thought would match foreign material.

It is the unfolding of such facts and the enlightenment of the manufacturers of the country that places the National Exposition of Chemical Industries in a position to serve to advantage in centering attention upon the resources of the South.

The few Southern exhibitors that had exhibits at the Exposition last year were enthusiastic as to the results they obtained. Connections were made that have developed into important orders and valuable industrial undertakings in various parts of the South.

THIRD NATIONAL EXPOSITION OF CHEMICAL INDUSTRIES WEEK—SEPT 24TH

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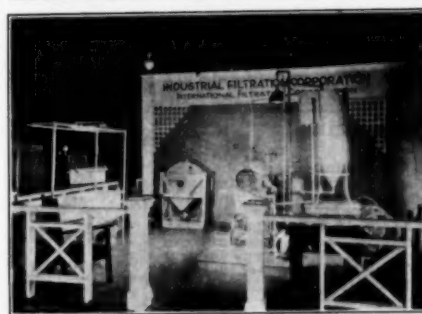
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We believe that there has not been an exposition in this country which offers the South an opportunity matching in any way the possibilities offered through the Chemical Exposition. This claim is not made boastfully, but is based upon knowledge of actual results that have followed the two expositions so far held.

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industries which stand behind the manufacture of munitions and other products so widely needed, added force is given to the timeliness of the coming exposition in September. Here is the great exchange place where Southern States, Southern railroads and Southern manufacturers can assemble in orderly fashion exhibits of the range of raw materials and opportunities they have in their respective sections, with the certain knowledge that these will be viewed and investi-

gated by the greatest chemical interests in the country.

It should need no undue urging to impress the value and force of this opportunity upon the South; but in order to have time to assemble a representative exhibit for this exposition it is important that steps be taken as early as possible to arrange the necessary details, and the managers of the Chemical Exposition will be glad to furnish anyone in the South with complete information and invite correspondence from them.

Classified Opportunities

MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

FOR SALE—700 acres on railroad adjoining town of 5000; textile mill site and town development or subdivision property; electric power; extensive pike frontage. Address Isaac Aydelott, Tallahassee, Tenn.

FOR SALE? Farm, timber land, mineral property or any other? We can help you get in touch with possible purchasers by an advertisement in these columns. For rates see head of this department.

FOR SALE—4 choice water-power sites near railway, with land at station for plants. Also mineral and timber. Address E. Carter, Livingston, Va.

FELDSPAR If you have or want them, and KAOLIN. S. F. Sherman, 62 Broadway, New York City.

OIL LAND

FOR SALE OR LEASE—10 acres oil land in heart proven Gulf Coast oil field, 600 feet from producing well. Exceptional opportunity. Apply to J. C. Daspi, Attorney, Baton Rouge, La.

MANGANESE

MANGANESE ORE PROPERTY, consisting of 200 acres, thoroughly prospected. Many bore holes prove large vein and vast quantity of ore. The property is now being worked in a crude way and the operator is making large profits. This property is close to railroad and justifies scientific development. The owner of this property authorizes us for a short while to offer it at a very low figure. P. A. Green & Co., 713 Mutual Bldg., Richmond, Va.

SULPHUR

SULPHUR LAND. Proven Sulphur Land for sale. Will sell in tracts to suit purchaser. J. A. Daniel & Company, Toyah, Texas.

KAOLIN

KAOLIN PROPOSITION.—Wanted to get in touch with kaolin mine operator. Mine very rich and on railroad and water. Samples furnished on request. Apply to T. M. Smathers, Canton, N. C.

GRAPHITE

GRAPHITE FOR SALE.—330 acres of graphite land, 4 veins $\frac{1}{2}$ mile long, from 100 to 200 yards in width. Government analysis, 2.61 to 3.32. Apply to J. H. Hastie, Talladega Springs, Ala.

GRAPHITE.—Bargain sale of 600 acres proven graphite, located on main graphite lead of Clay County. Average analysis 5% carbon graphite in lots from 80 acres to 300. Open ready for inspection to prospective purchasers. Apply Fletcher & Owens, Box 274, Ashland, Ala.

COAL LANDS

FOR SALE—A body of five thousand acres of coal land in Jefferson and Blount Counties. R. F. Smith, 324 First National Bank Bldg., Birmingham, Ala.

TIMBER LAND

TIMBER TRACT.—I have in South Florida on railroad 50,000 acres virgin long-leaf yellow pine timber; will cut 200,000,000 ft. For quick sale will take \$12.50 per acre fee-simple. Can't cut tract; must be sold all in body. Will take \$200,000 cash to handle; balance can be arranged. If interested and can handle the proposition, wire for appointment to look tract over. R. E. Burdette, 116 Candler Building, Atlanta, Ga.

1700 ACRES VIRGIN TIMBER, eight miles from railroad. Long-leaf pine, extra fine quality; also best grade of white oak. All the land can be utilized as farm or stock ranch. Greatest abundance of water; convenient to schools. Will cut 3000 to 8000 feet per acre. \$15 per acre in fee. Box 176, Heber Springs, Arkansas. Heber Springs Development Company.

SAW AND TANNIC ACID TIMBER.—20,000 acres in fee, 3 miles railroad in N. C.; 231,000,000 ft. saw timber, 112,000,000 ft. chestnut and chestnut oak, 30,000 cords tan bark, 500,000 crossties. Direct from owners. Agents need not answer. Price \$16.50 per acre. P. O. Drawer 67, Wilkesboro, N. C.

70 MILLION feet long-leaf pine in Alabama, on railroad; 14,000 acres, \$18 per acre in fee; contract can be made to take 40 million feet sawed lumber f. o. b. cars at mill, \$35 per thousand feet. Green & Redd, Richmond, Va.

FOR SALE—Fifty-thousand-acre tract of virgin pine timber. This is the finest tract of virgin pine timber in Florida. Tutwiler & Powell, Dothan, Ala.

FOR SALE—34,540 acres round pine timber on two railroads. Cut 5000 feet per acre. Warranty deed to land. Price \$14 per acre. Address S. F. King, Manville, Fla.

RATES AND CONDITIONS

Rate 25 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 23c. per line; 300 lines, 21c. per line; 500 lines or more, 20c. per line.

TIMBER

TIMBER FOR SALE.—Fourteen million feet pine timber, with 1500 acres land, right on deep water with wharf on place, in Virginia. Cheap transportation to Northern cities. Price for all, \$115,000. Timber worth the price without the land. Address E. F. Schmidt & Co., Inc., Richmond, Va.

FOR SALE—TIMBER, million feet, mostly white oak, some chestnut and poplar; fine quality; accessible to railroad; low freight rate; 40 miles from National Capital. Bargain if sold at once. Charles Hoover, Owner, Haymarket, Va.

TIMBER BARGAIN.—50,000,000 ft. original growth. 60% N. C. pine, 2% cypress, 2% poplar, balance red gum, etc., on Southern Rwy. in South Carolina. Large amount of additional, contiguous, similar stumpage can be bought cheap. For particulars write J. P. Mulherin, Augusta, Ga.

FOR SALE—About three hundred and seventy-five million feet of the highest grade and quality of virgin long-leaf yellow pine. For particulars address H. H. Wefel, Jr., Mobile, Alabama.

15 MILLION FEET fine ship timber in Eastern Virginia; about half yellow pine, balance oak and hickory, all virgin growth. Green & Redd, Richmond, Va.

FARM AND TIMBER LANDS

50,000 ACRES GOOD HARDWOOD LANDS. \$20 per acre; long time, 6% interest. Good for fruit, general farming and stock raising. Fine water for stock. Write for land book. Kopp Land Co., Kewanee, Ill.

WE OWN LARGE TRACTS OF TIMBER LANDS, cut-over lands and colonizing lands. If interested, address H. H. Wefel, Jr., & Co., Mobile, Alabama.

STOCK FARMS

250 ACRES of the best watered stock farm for sale; finely improved; \$100 per acre. Oil well on 3 sides; 2 miles north of Coweta, Okla. Conny Murphy, Coweta, Okla.

FOR SALE.—Ten thousand acres especially well adapted for a ranch, located South Alabama. If buyer stocks ranch, would require no payment for three or four years. Address H. H. Wefel, Jr., Owner, Mobile, Ala.

FARM AND GRAZING LANDS

WE HAVE FOR SALE 328 farms in Piedmont Virginia and Northern Maryland, ranging in price from \$1000 to \$100,000, many of which are in a high state of cultivation, for general farming, grazing, orcharding and dairying. W. W. Briggs & Son, Orange, Va.

CATTLE RANCHES

ALABAMA CATTLE RANCH. 7000 acres, 6000 under heavy wire fence. Well watered; good pasture 9 months in year; 30 miles from Birmingham; served by two trunk-line railroads; fine markets. Stocked with 400 cattle; pasture capacity 1000 head. Greatest ranch opportunity South. Farmhouse and dipping vat. Inspection desired. Price \$25,000; \$15,000 cash, \$15,000 Oct. 1, 1917; balance \$15,000 yearly; 6% interest. Will deal direct only; no agents. W. H. Bason, Birmingham, Ala.

COUNTRY HOME

FOR SALE OR EXCHANGE. Magnificent modern country home, 10 acres, 15 rooms, gas, electricity, sewerage, fine water supply, 3 bathrooms, hot-water heat, servants' quarters, individual phones, garage, stable, barn, chicken-houses, in first-class condition. Garden, asparagus, strawberry beds, young orchard, all fruits, flower beds, beautiful shade. Overlooking Washington, 30 minutes U. S. Treasury by electric cars, 15 minutes auto, 10 minutes steam road. Price \$30,000; terms if desired. O. B. Zantinger, Washington, D. C.

SUBURBAN ACREAGE

SUBURBAN ACREAGE.—In the high-class restricted section adjoining the city of Tampa; this property is now ripe for a high-class restricted subdivision; has large and excellent bay frontage; is within four miles of the business center of Tampa, with new interurban line to be built through entire tract and near golf links. For information write Hammond-Weaver Co., Giddens Bldg., Tampa, Fla.

FRUIT, FARM AND TRUCK LANDS

THESE COLUMNS ARE CLOSELY READ BY PEOPLE for information of all kinds about Southern properties of every description. If you have a property of any kind that you want to dispose of, try an advertisement in these columns. Others have to their advantage. For rates see head of department.

ALABAMA

FOR SALE in soft, ideal climate, grand bay view, choice 43-acre tract, \$500. Choice beach lots, \$100. Other cash bargains. J. O. Matson, Point Clear, Ala.

ARKANSAS

DO YOU WANT a first-class farm, well equipped and crop planted? Two miles of Arkadelphia, Ark.; 60 head of cattle, 40 hogs, 9 young mules, four and five years old. You can buy today and never stop a plow; 200 acres in cultivation. Somebody can get a bargain. Don't write unless you have the money. Write for particulars or come and see. Town of T. N. Wilson, Arkadelphia, Ark.

FLORIDA

FOR SALE

6500 ACRES IN FLORIDA.

WHOLESALE PRICE. WILL NOT RETAIL.

Located on the East Coast, in Volusia county; price \$6.50 per acre; \$1 per acre down, balance \$1 per acre per year, 6 per cent interest on deferred payments; 8 miles west of New Smyrna, Fla.; on the Orange City branch of the Florida East Coast R. R.; Indian Springs Station is only $\frac{1}{4}$ of a mile from it; 2500 acres are "prairie land." Has an elevation of about 22 1/2 to 41 feet above the tide-water; top soil is a black sandy loam, underlaid with clay. Would make an ideal stock range. There are forty families farming in the adjoining sections; some have raised 45 to 50 bushels of corn to the acre, 50 barrels of Irish potatoes, and all kinds of garden truck, such as lettuce, beans, peas, Bermuda onions, besides good crops of rice, oats and grasses for feed. Title good. Owned in fee-simple, without incumbrance. Other information will be furnished upon request by E. C. Howe, 747 Hartford Bldg., Chicago, Ill.

FLORIDA.—Do you intend visiting the land of health and sunshine this winter? If so, write M. J. Hoelg, Prop. Hotel Palms, West Palm Beach, Fla., for instructive booklet.

FOR A SAFE and permanent investment Florida lands and values should interest you. Manatee County is the best location, and is destined to become one of the most progressive settlements in the State and a very profitable investment. Florida farms in Manatee County are below frost belt; have rich soil, with 365 producing days. Easy terms. J. Henry Strohmeier, Maryland Casualty Tower Building, Baltimore, Md., and Sarasota, Florida.

FOR SALE—An established colony in Florida. Now is the time to get back to the soil. This is a bargain proposition. Good reason for selling. Address No. 3088, care Manufacturers Record, Balto., Md.

FREE. "THE WINTER GARDEN OF AMERICA," to Fruit Growers, Truckers, General Farmers, Cattle, Hog and Poultry Raisers. Folks interested in the great Indian River Section of Florida, write Indian River Farms Company, Suite O, 609 Putnam Bldg., Davenport, Iowa.

GEORGIA

FARM LANDS FOR SALE.—6000 acres in Georgia. No better land in the State. Public highway through it. Several small settlements. No waste land. Price \$15 per acre. A real bargain. Should soon bring \$50 per acre. Box 442, Raleigh, N. C.

LOUISIANA

FOR SALE—2700 acres rich alluvial land, 30 miles from Baton Rouge, La., on trunk line; station on property; excellent for stock raising or colonization; splendid natural drainage; schools, churches, telegraph one mile; telephone on property. Very attractive investment. Price, \$7 per acre. Apply to J. C. Daspi, Baton Rouge, La.

LOUISIANA in the "SUNNY SOUTH." No extremes of heat or cold. Lands cheap. Opportunity beckons. Write Farm Lands Department Steere Home Construction Co., Shreveport, Louisiana.

MARYLAND

FOR SALE—Water-front farm containing 127 acres; one-half in timber and one-half in cultivation. Improved by colonial brick house in excellent condition. Sandy shore, fine for bathing; near Salisbury. For quick sale it can be bought for \$5000; easy terms. For full particulars address S. P. Woodcock & Co., Salisbury, Maryland.

NORTH CAROLINA

FOURTEEN ACRES LAND, with good 9-room house, half mile from Guilford College, N. C., for sale. Matheson-Wills Real Estate Co., Inc., Greensboro, N. C.

SOUTH CAROLINA

FOR SALE—Coosaw farms, 1250 acres, 500 under cultivation and open, balance in woods and marshes. Land very fertile. Now raising truck, cotton, corn and cattle. Will accommodate several families. Reasonable price, easy terms. May exchange for city realty. Write to Wm. Keyserling, Beaufort, S. C.

TEXAS

MONEY can't be used to better advantage now than investing it in South Texas land. There is no speculation in it. You will know so a year from now. I give you here a few good buys: 2333 acres of fine agricultural land, located in a proven oil district; price \$10 per acre; terms, 1000 acres improved stock farm between Austin and San Antonio; 200 acres tillable land; one mile river front; across the river is constructed a solid dam of rock masonry, giving 35 to 40 horsepower, which operates a large turbine wheel, a gin, press and, grist mill, and sufficient water to irrigate at least 50 or 75 acres; a large lake is created by the dam, furnishing good fishing. The community is a good one. Nature has put its charm to this spot, and could be developed and made a real paradise for man on earth. The price placed on this desirable property—only \$16,500—is very low. This is the biggest bargain in Texas. Write me your wishes; state in your first letter what size tract you want, agricultural or ranch land; what capital you have to invest. I have improved farms, small and large, colonization tracts from 2000 to 25,000 acres, ranches of 5000 to 30,000 acres, at prices from \$4.50 to \$20 per acre. Suitable terms given. Act now. Write B. P. Hintze, 214 East 6th Street, Austin, Texas.

I OFFER until sold a 500-acre farm in Victoria Co., Texas, 140 acres of which is in cultivation, 100 acres bottom land in timber, balance mostly open prairie. Land is fenced; has running creek fed by springs on the land; is two and one-half miles from the station; good house, barn, cribs and sheds. Price \$30 an acre; \$5000 cash, balance easy terms. Have tenant waiting who will pay \$1050 a year for this land each year cash in advance. This is good land and a big bargain, paying 7% cash in advance. W. W. Miller, Cattlemen's Exchange, San Antonio, Texas.

FOR SALE—5000 acres of extra-fine farm land cheap. If you want land in any sized tracts, write to Levi Paul, El Campo, Texas.

VIRGINIA

SHENANDOAH VALLEY

OF VIRGINIA, Where Blue Grass and Alfalfa Grow.

In the heart of the Apple Belt. Delightful climate. Fertile Soil.

Write John M. Londeree, Staunton, Va.

EXCELLENT GRAIN AND GRASS FARM. 1200 acres. Large dwelling of 16 rooms. Several barns, cattle sheds, etc. 800 acres in cultivation, balance in good timber. The land is very productive and located about 50 miles west of Richmond. Price \$35,000. James River farm of 250 acres. Wharf on farm. Is reached by water of all Eastern markets; 15 miles of Richmond. Large dwelling, overlooking river. Price for quick sale, \$18,000. J. A. Connelly & Company, Richmond, Va.

WEST VIRGINIA

FARM, 155 acres Kanawha river bottom, 2 miles north of Charleston. Good 6-room dwelling, two good barns and orchard. W. J. Greenlee, 2 Fifth St., Charleston, W. Va.

Classified Opportunities

INCORPORATING COMPANIES

DELAWARE CHARTERS.
Stock Without Par Value.
Directors Need Not Be Stockholders.
Other important amendments (March 20, 1917).
Write for new DIGEST (4th ed.).
CORPORATION COMPANY OF DELAWARE
Equitable Building, Wilmington, Delaware.

ATTORNEYS

RAYMOND M. HUDSON,
Attorney.
Washington, D. C.
Practice before U. S. Supreme Court, U. S. Court of Claims, D. C. Court of Appeals, D. C. Supreme Court, Va. and Md. Courts. Executive Departments, Congressional Committees, Federal Reserve Board, Federal Trade Commission, Interstate Commerce Commission. Cable "Rayhud."

BUSINESS OPPORTUNITIES

WANTED—Partner with from six to eight thousand to invest with like amount in a lucrative manufacturing business. For particulars address Box 304, Anniston, Ala.

DOUBLE BAND MILL in North Carolina. Up-to-date equipment. Ample standing timber behind it. Making money. Good reason for selling. Green & Redd, Richmond, Va.

IN A WESTERN STATE, 6 miles N. E. of R. R. station, is a mountain practically of native sulphur. What is information of this location worth? Address Hartley-Hellyer, 124 W. Fayette St., Baltimore, Md.

FOR SALE—A small hotel, 27 acres of land, beautifully situated on the James River, 25 miles from Norfolk; good bathing and fishing; growing automobile trade. Address by letter, J. A. Morgart, Smithfield, Va.

WANTED—Slate operators. We have several quarries to lease on our 5000 acres. Will contract to take the output. The Southern Slate Co., Willsdam, East Tennessee.

FOR SALE—Controlling interest in a hydro-electric property, undeveloped; self-supporting, with most liberal charter; also, an interest in numerous patents on process using kaolin, etc. Address No. 3097, care Manufacturers Record, Balto., Md.

WAR makes house demand unprecedented in fast-growing city, 135,000. Owner has 100-000 lots best section. Wants capital with or without services to join and build. Big profits. International Bank & Trust Co., San Antonio, Texas.

FOR SALE—Band mill 50,000 to 60,000 feet capacity, 30,000,000 stumps, 20 miles railroad with complete logging equipment; loco's and cars, drykilns, mill new and in first-class condition; run about 5 years; located on Atlantic Coast Line in Eastern North Carolina. Address C. H. Richardson, Washington, N. C.

FOR SALE—Boat yard and storage yacht basin, all covered. The largest covered basin in the U. S. 72 yachts on storage and yard full of work. New building for machine shop 80 feet of river front, large ways, on Miami River, fresh water. Address P. O. Box 453, Miami, Fla.

INDIVIDUAL wishes to incorporate factory for additional capital from \$5000 to \$15,000. The sale of output is guaranteed. Location, Kentucky, in a thriving city. Active manager with a thorough knowledge of oak and lumber to take charge. Address No. 3041, care Manufacturers Record, Balto., Md.

\$10,000 8% preferred stock, in denominations of \$500 each, in a profitable concern producing bleached cotton lint and fibre for nitrating purposes, for gun cotton and for absorbent cotton. \$100 worth of the common stock will be given with each \$500 of preferred stock. For particulars address No. 302, care Manufacturers Record, Balto., Md.

CASH FURNISHED TO BUILD.—We will figure with you to build your apartment, hotel, storage or manufacturing plant. In some cases we have erected buildings worth three times the value of the ground built on. 10-year loan; lowest rate of interest. Furnish sketch in full when replying. \$50,000 upward. S. J. Burkitt, Moweaqua, Ill.

TOY FACTORY OPENING.—Large amount of waste wood and mirror from twenty-seven furniture and three mirror factories, which can be utilized in toy making. Proximity to raw material; labor and other conditions attractive. Write Industrial Dept., Box 42, High Point, N. C.

FOR RENT—In Alexandria, Va., a 4-story corner brick building, 62x115 ft., suitable for storage or factory purposes. A. T. Holtzman, 1320 New York Ave., Washington, D. C.

A FEW State rights for \$100 per million population, 7% royalty. Article described in Manufacturers Record of May 3 and 10. Act quick. S. W. Hales, 770 4th Ave., Detroit, Mich.

FOR SALE—One-half undivided interest in 30 acres in industrial addition on North Broadway in the city of Ada; my interest 15 acres. L. H. Koli, 123 East Tenth street, Ada, Okla.

BUSINESS OPPORTUNITIES

TIMBER, agricultural, ranch, mineral, oil investments, Texas or Oklahoma. Experienced and familiar this class investments. Great opportunities right now. Bank references. D. E. Hirschfeld, Waco, Texas.

PARTNERS WANTED—Mechanical engineers, officers and salesmen to take at a bargain three-fourths of the capital, plant and patents of the Molsinger Rotary Engine Co. and reorganize same for production. Engine fully developed and needed in navy. Plant worth twenty-one thousand, free of debt and ready to run. N. H. Molsinger, Fredonia, Pa.

FOR SALE—Part or whole interest in factory making kitchen and porch furniture; good town, established trade, low rent, free water, unlimited opportunities. For information address W. Y. Prince, Birmingham, Ala.

BUILDINGS—STEEL PORTABLE

"PRUDENTIAL" STEEL BUILDINGS for all purposes; portable one-story construction; workshops, toolhouses, storage, garages, bunkhouses, etc. Write for Catalog A. C. D. Pruden Company, Baltimore, Md.

PATENTS FOR SALE

FOR SALE—Patent for the Davis patent construction joint, used in the manufacture of safes, china closets, cupboards, etc. Admitted by other manufacturers to be best on the market. Address F. F. Smith, Cashier, Mebane Bank & Trust Co., Mebane, N. C.

PATENT ATTORNEYS

Patents secured or fee returned. Actual search and report free. Send sketch or model. 1917 Edition, 90-page patent book free. Personal and prompt service. My patent sales service gets full value for my clients. George P. Kimmel, 288 Barrister Bldg., Washington, D. C.

PATENTS.—Write for how to obtain a patent, list of patent buyers, and inventions wanted. \$1,000,000 in prizes offered for inventions. Send sketch for free opinion as to patentability. Our four books sent free upon request. Patents advertised free. We assist inventors to sell their inventions. Victor J. Evans Co., Patent Attorneys, 712 Ninth St., Washington, D. C.

HIGH-VALUE PATENTS
Patents that fully protect.
Patents that pay Largest Financial Returns are the kind we obtain. References. SUCCESSFUL Inventors and WELL-KNOWN Manufacturers. Send 8 cents for new book of extraordinary interest and value to inventors. R. S. & A. B. Lacey, 93 Barrister Building, Washington, D. C. Established 1869.

EUGENE C. BROWN, ENGINEER AND PATENT LAWYER, 734 Eighth St. N. W., Washington, D. C. Graduate Engineer in high University; Member Bar U. S. Supreme Court; Former Examiner U. S. Patent Office. **PATENTS AND TRADEMARKS.** Inventions considered from engineering and legal standpoint. Infringements and extent of patent monopoly investigated for manufacturers. Glad to answer any inquiries.

PATENTS—TRADE-MARKS.—Highest professional service. I personally examine the Patent Office records in regard to and personally prepare and prosecute every application filed through my office. Highest references. Booklet, "The Truth About Patents," and honest advice free. J. R. Kelly, Patent Attorney, 750 Woodward Bldg., Washington, D. C.

INVENTIONS—PATENTING AND PROMOTING.—A book containing practical advice and directions for inventors and manufacturers. Book, suggestions and advice free. Lancaster & Allwine, Registered Attorneys, 265 Ouray Bldg., Washington, D. C.

PATENTS THAT PROTECT AND PAY
Advice and books free. Highest references. Best results. Promptness assured. Trade Marks registered. Watson E. Coleman, Patent Lawyer, 624 F St., Washington, D. C.

POSTAL will bring free booklet telling all about patents and their cost. Shepherd & Campbell, Patent and Trade-Mark Attorneys, 732 8th St., Washington, D. C.

PATENT YOUR IDEAS.—\$9000 offered for certain inventions; book, "How to Obtain a Patent," and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandler & Chandler, Patent Attorneys, 978 F St., Washington, D. C.

PATENTS and TRADEMARKS
Procured by a former Examining Official of the U. S. Patent Office.
NORMAN T. WHITAKER,
Attorney-at-Law, Mechanical Engineer,
31 Legal Bldg., Washington, D. C.
(Opposite Patent Office.)
Inquiries Invited.

SHIPBUILDING SITES

SHIPBUILDING SITES, FERNANDINA, FLORIDA.
We invite prospective shipbuilders to investigate opportunities offered here. Chamber of Commerce, Fernandina, Fla.

FACTORY SITES

BALTIMORE FACTORY AND TERMINAL SITES.—Statement of Asa G. Candler, President The Coca-Cola Co.: "Investigation convinced us that Baltimore is not only the commercial metropolis for Southern trade, but that it affords shipping opportunities both by water and rail for domestic and foreign traffic superior to any of the great cities in any section of the United States." Locate in Baltimore and derive these advantages. We can provide accommodations to meet your requirements.

"OUR MOTTO":
FACTORY AND TERMINAL SITES
IN BALTIMORE.
Wm. Martien & Co.,
Ninth Floor, Lexington St. Bldg., Balto., Md.

FOR SALE.—I have some very fine sites for any kind of factories, located in a spur track between Rocky Mount and cotton mill, situated between a negro and white settlement; labor plentiful. Also plenty of land for other buildings, residences. Prices reasonable. Write or come. Will trade said lots in three bodies or squares for a nicely-located farm between three and eight miles of town in white locality. Address R. D. Trevathan, 708 Peach Tree St., Rocky Mount, N. C.

INDUSTRIAL PLANTS FOR SALE

FOUNDRIES AND MACHINE SHOPS

FOR SALE—Well-equipped machine shop, located on river in heart of Tampa. Great interest now in shipbuilding. Good opportunity to right man. Good reasons for selling. C. H. Thompson, Winter Haven, Fla.

FOR SALE—Well-equipped foundry and machine shop, located in North Alabama. Property fronting 500 ft. on R. R. Will sell plant as a whole or machinery and equipment. Excellent location in town of 8000 to 10,000. For particulars address A. J. McGarry, Howard, Ohio.

ROLLER FLOUR MILL

FOR SALE—To settle an estate, 30-barrel roller flour mill, with 200-bushel burr corn mill; good water-power; machinery and equipment in good shape; good trade in flour, meal and foodstuffs; excellent neighborhood. About 140 acres good land. G. C. Stone, Hurt, Va.

WOODWORKING PLANT AND BRICK YARD
AUCTION SALE JUNE 6.—One up-to-date woodworking and furniture factory; also two brick yards, electrically equipped, with daily capacity of 40,000 each. For full particulars address S. P. Woodcock & Co., Salisbury, Md.

CARRIAGE AND BLACKSMITH PLANT

FOR SALE—Going, established plant; two-story brick building, with modern carriage and blacksmith plant, doing \$20,000 to \$25,000 annual business, established 16 years. This is the chance of a lifetime for the right man. Present owner is sick and must go to higher altitude. For details write Roy B. Nichols, Houston, Tex.

STONE CRUSHING PLANT

FOR SALE—Complete, well-equipped stone-crushing plant in granite quarry, located on main line prominent railroad; no haul; railroad siding to bins. Quantity of stone unlimited. Splendid market for product. Owners now have contract with railroad for capacity of plant. Good reasons for selling. For further information, terms, etc., apply E. E. Johnson, Culpeper, Va.

WOODWORKING PLANT

WOODWORKING PLANT
For sale, complete in running order, or will sell machinery alone. Berlin machines. General Electric motors. American blower system. Brick buildings. On railroad in Southern tidewater city of one hundred thousand. Suitable also for manufacturing army or navy materials. Correspondence invited. Address No. 3006, care Manufacturers Record.

MANUFACTURING PLANT

AN excellent opportunity to buy a real good manufacturing plant at a splendid bargain. Address No. 4000, care Manufacturers Record, Balto., Md.

IRON, BRONZE AND WIRE WORK

FOR SALE—Iron, bronze and wire works; plant running full time on good-paying orders; needs experienced manager and some new capital. Address W. E. McClamrock, V. Pres., Jackson, Tenn.

MEN WANTED

IF ACTUALLY QUALIFIED for salary between \$2500 and \$25,000, communicate with undersigned, who will negotiate strictly confidential preliminaries for such positions; executive, administrative, technical, professional; all lines. Not an employment agency; undersigned acts in direct confidential capacity, not jeopardizing present connections. Established 1910. Send name and address only for explanatory details. R. W. Bizby, El Niagara Square, Buffalo, N. Y.

WANTED—Syndicate of Business men wish to communicate with thoroughly experienced, practical brick and drain tile man, who would be competent to manage plant now built but not in operation. Person acceptable would be required to make small investment. Good opportunity for one who knows the business and is a hustler. Address No. 3069, care Manufacturers Record, Balto., Md.

WANTED—Combination office man and bookkeeper familiar with work of paving and sewer contractor, age between 30 and 35 years. State experience, reference and salary in first letter. Slattery & Henry, Inc., Greenville, S. C.

DRAFTSMAN WANTED.—Man with fair experience in architectural work. C. L. Brooks Engineering Co., Moultrie, Georgia.

SITUATIONS WANTED

YOUNG MAN, 31, married, wishes to change position; 5 years' experience on highway construction and maintenance and 5 years on general construction. References. Address No. 3088, care Manufacturers Record, Balto., Md.

PRACTICAL shipbuilder open for engagement. Capable of managing large yard. At present employed. Correspondence invited. Address No. 3069, care Manufacturers Record.

WANTED—Position as salesman for some Class A Eastern or Western concern in the Southeast. Enjoy large acquaintance among architects, contractors, engineers, purchasing agents and mill trade. Must make change owing to war conditions affecting present business. Address No. 3005, care Manufacturers Record, Balto., Md.

OFFICE EQUIPMENT

BARGAINS.

Adding machines, calculating machines, duplicating machines, rotary mimeographs, addressing machines, check writers, envelope sealers, etc. All makes, new, used and rebuilt. Every machine guaranteed in perfect mechanical order. Collins & Co., 1324 Arch St., Philadelphia, Pa.

MACHINERY AND SUPPLIES

KEG STAVE MILL OUTFIT

FOR SALE—Keg stave mill outfit complete, in good condition. Camp Manufacturing Company, Franklin, Va.

CORLISS ENGINE

FOR SALE—One 22x18 Cooper Corliss engine, cylinder rebored, new head, rings and rod, valves reworked, thoroughly overhauled; A-1 condition, guaranteed. A bargain. By Mecklenburg Iron Works, Charlotte, N. C.

SAWMILL OUTFIT

FOR SALE—A complete sawmill outfit, except boiler, including 3 saws, one new, latest improved; new belt; at a sacrifice price. John A. Nicol, Woodward Bldg., Washington, D. C.

PUMPING PLANT

FOR SALE—SECOND-HAND PUMPING PLANT.—24" Worthington single-suction centrifugal pump, 155 H. P. Babcock & Wilcox water-tube boiler, 240 H. P. Buckeye engine, vertical, cross-compound. Pumping capacity, 15,000 gal. per min. 36-ft. lift. Condenser, water heater, boiler-feed pump and other attachments, complete. In perfect shape, ready to run. For particulars address P. O. Box No. 2, Pierce, Texas.

ENGINE AND PUMP

FOR SALE—1 Chandler & Taylor High Speed 40 H. P. Engine, 1 Snow Steam Pump. Both in good condition. Heron Iron Bedstead Co., Chattanooga, Tenn.

MACHINERY and SUPPLIES WANTED

MILLING EQUIPMENT

WANTED—Prices on second-hand six or eight-foot Hardinge mill and cypress tank twenty-two feet in diameter, also the smaller machines necessary for installation of 100-ton flotation unit. Address Mill, Box 74, Salisbury, N. C.

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

PROPOSALS FOR TRACK SPIKES, NAILS,
Rail Frogs, Steel Castings, Spring Plates,
Driving Springs, Electric Cable and Wire,
Hinges, Locks, Door Bolts, Screw Eyes, Cup
Hooks, Grommets, Bed Knobs, Battery Zincs,
Detonators, Transformers, Electric Motors,
Fiber Duct, Sea Anchors, Distress Outfits,
Fire Extinguishers, Lanterns, Lamp Chim-
neys, Window Glass, Snatch Blocks, Buckets,
Sprinkling Cans, Brooms, Coal Baskets, Tool
Handles, Leather, Rubber Gaskets, Railway
Flags, Railway Bunting, Celluloid Cases,
Matches, and Crayons. Sealed proposals will
be received at the office of the General Pur-
chasing Officer, The Panama Canal, Wash-
ington, D. C., until 10:30 A. M. June 15, 1917,
at which time they will be opened in public,
for furnishing the above-mentioned articles.
Blanks and information relating to this Cir-
cular (No. 1147) may be obtained from this
office or the offices of the Assistant Purchas-
ing Agents, 24 State Street, New York City;
Audubon Building, New Orleans, La., and
Fort Mason, San Francisco, Cal.; also from the
United States Engineer Offices in the
principal cities throughout the United States.
EARL I. BROWN, Major, Corps of Engi-
neers, U. S. A., General Purchasing Officer.

Bids close June 15, 1917.

TREASURY DEPARTMENT. Supervising
Architect's Office, Washington, D. C., May
16, 1917. Sealed proposals will be opened in
this office at 3 P. M. June 15, 1917, for a
surgical-dressing room at the U. S. Marine
Hospital, Baltimore, Md. Drawings and
specifications may be obtained from the cus-
todian of the building, or at this office, in
the discretion of the Acting Supervising Archi-
tect. JAS. A. WETMORE, Acting Supervising
Architect.

Bids close June 26, 1917.

TREASURY DEPARTMENT. Supervising
Architect's Office, Washington, D. C., May
17, 1917. Sealed proposals will be opened at
this office at 3 P. M. June 26, 1917, for the
construction of the United States postoffice
at Monessen, Pa. Drawings and specifica-
tions may be obtained from the custodian of
the site at Monessen, Pa., or at this office,
in the discretion of the Supervising Archi-
tect. JAS. A. WETMORE, Acting Supervising
Architect.

Bids close June 20, 1917.

TREASURY DEPARTMENT. Supervising
Architect's Office, Washington, D. C., May
17, 1917. Sealed proposals will be opened at
this office at 3 P. M. June 20, 1917, for the
construction of the United States postoffice
at Front Royal, Va. Drawings and specifica-
tions may be obtained from the custodian of
the site at Front Royal, Va., or at this office,
in the discretion of the Supervising Archi-
tect. JAS. A. WETMORE, Acting Supervising
Architect.

TREASURY DEPARTMENT. Supervising
Architect's Office, Washington, D. C., May
19, 1917. Sealed proposals will be opened in
this office at 3 P. M. June 15, 1917, for the
construction of the United States Postoffice
at Chapel Hill, N. C. Drawings and speci-
fications may be obtained from the custodian
of the site at Chapel Hill, N. C., or at this
office, in the discretion of the Acting Super-
vising Architect. JAS. A. WETMORE, Acting
Supervising Architect.

Bids close June 16, 1917.

PROPOSALS FOR CEMENT. U. S. Engi-
neer Office, Montgomery, Ala. Sealed propo-
sals for furnishing and delivering about
14,000 barrels of American Portland cement
will be received at this office until 2 P. M.
June 16, 1917, and then publicly opened.
Information on application.

Bids close June 9, 1917.

PROPOSALS FOR GRAVEL OR CRUSHED
Stone. U. S. Engineer Office, Montgom-
ery, Ala. Sealed proposals for furnishing
and delivering about 16,000 tons of gravel or
crushed stone will be received at this office
until 2 P. M. June 9, 1917, and then opened.
Information on application.

Bids close June 19, 1917.

\$10,000 Improvement Bonds

Commissioners of the Town of Pembroke,
North Carolina, will receive sealed bids at
Pembroke, N. C., office of Clerk and Treas-
urer, up to 12 o'clock M. on June 19, 1917, for
\$10,000 Pembroke municipal public improve-
ment 20-year bonds, 5 per cent. to 5½ per
cent. All bids shall be preceded or accom-
panied by \$300 cash or certified check on in-
corporated bank or trust company, payable
to E. M. Paul, Clerk and Treasurer, Pem-
broke, N. C. Town reserves right to reject
all bids. Authority, Public Acts North Caro-
lina, 1917, Ch. 138.

Bids close June 12, 1917.

\$5,500 6% Bonds

\$5500 thirty-year six per cent. gold bonds,
issued for the purpose of building and equip-
ping a schoolhouse by the Hopeful School
District of Mitchell County, Georgia, will be
sold on June 12, 1917, at noon. Sealed bids,
to be accompanied by the bidder's check for
\$500, will be opened at that time, and should
be addressed to the Secretary of the Board
of Trustees, Hopeful School District, Cam-
illa, Georgia.

C. B. COX,
Secretary Board of Trustees.

PROPOSAL ADVERTISING INFORMATION

RATE: 25 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 9 A. M. Wednesday. Copy received later cannot be published until
issue of following week.NIGHT LETTER: When too late to send copy by mail to reach us by 9 A. M. Wednes-
day, forward by night letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commer-
cial and financial activities of the South and Southwest.The Daily Bulletin can be used to advantage when copy cannot reach us in time
for publication in the Manufacturers Record before bids are to be opened, or when
daily publications are necessary to meet legal requirements.

The same rate applies—25 cents per line per insertion.

Bids close June 19, 1917.

\$100,000 5% Bonds

MECKLENBURG COUNTY, NORTH CARO-
LINA, BRIDGE BONDS.

The Board of Commissioners of Mecklen-
burg County, North Carolina, will receive
bids at the office of the undersigned in Char-
lotte, N. C., until 12 o'clock M. June 19, 1917,
and will then open the same, for the pur-
chase of One Hundred Thousand (\$100,000)
Dollars 5 per cent. coupon bridge bonds of
Mecklenburg County, registrable as to prin-
cipal, dated July 1, 1917, principal and semi-
annual interest payable at the United States
Mortgage and Trust Company, in the City of
New York, State of New York (or such other
place as may be mutually agreed upon be-
tween said Board and the purchaser of said
bonds); denomination One Thousand (\$1000)
Dollars, maturing Ten Thousand (\$10,000)
Dollars annually on the first day of July of
each year, from 1918 to 1921, both inclusive,
and Fifteen Thousand (\$15,000) Dollars each
year from the year 1922 to 1925, both inclu-
sive.

By law and a resolution of the Board of
Commissioners of said county, an unlimited
special tax has been provided for the pay-
ment of the principal and interest when due.
Bonds will be prepared under the super-
vision of the United States Mortgage and
Trust Company, in the City of New York (or
such other company as may be mutually
agreed upon between this Board and the
purchaser), who will certify as to the gen-
uineness of signatures of the county officials
and the seal impressed thereon. The legiti-
macy of the bonds will be approved by Cal-
well, Masslich & Reed, Esqs., New York, or
such other attorneys as may be mutually
agreed upon between this Board and the
purchaser of said bonds, whose favorable
opinion will be furnished to the purchaser
without charge. All bids must be upon
blank forms which, together with other in-
formation, will be furnished by the under-
signed, and must be accompanied by a cer-
tified check upon a national bank, or upon a
bank or trust company, in North Carolina,
for Twenty-five Hundred (\$2500) Dollars. No
bid for less than par value and accrued in-
terest will be received. Bonds will be deliv-
ered in Charlotte, Cincinnati, Baltimore or
New York, at purchaser's option, on August
1, 1917, unless an earlier date shall be agreed
upon with the purchaser. The right to re-
ject any and all bids is expressly reserved.

A. M. McDONALD,
Chairman Board of Commissioners of
Mecklenburg County, North Carolina.
D. M. ABERNETHY, Clerk.

Bids close June 19, 1917.

\$75,000 5% Bonds

The Board of Supervisors of Allen Parish
(County), Louisiana, Road District Number
Two (2), will open sealed bids at ten o'clock
A. M. June 19, 1917, for \$75,000 five (5%) per
cent. semi-annual interest twenty-year bonds.
Maturities serial, one to twenty years. New
York payment. Certified check for 2½ per
cent. of face value of bonds to accompany
bid. Purchaser to furnish blank bonds at his
expense. Delivery will be facilitated by
shipment of bonds by express to satisfactory
bank in reserve city, the purchaser to pay
express and exchange charges. The bonds
are offered subject to opinion of Wood &
Oakley, Chicago, whose preliminary approv-
ing opinion is now in hand. Full data will
be furnished on application to G. M. King,
Jr., Secretary-Treasurer, Kinder, Louisiana.
The right is reserved to reject any or all
bids.

Bids close June 7, 1917.

\$100,000 5% Bonds

The Town of Greenville, N. C., will re-
ceive sealed bids for One Hundred Thousand
Dollars Five Per Cent. Water and Light Im-
provement Bonds, and also Six Per Cent.
Water and Light Improvement Bonds, which
it proposes to issue. Bids will be opened at
the regular meeting of the Board of Alder-
men to be held June 7, 1917, at 8 o'clock
P. M. Bids must be accompanied by certified
check for Two Thousand Dollars to insure
compliance with bid if accepted.
Address bids to the Mayor or Clerk.

Bids close June 26, 1917.

\$195,000 5% Bonds

Sealed bids will be received by the under-
signed until 12 o'clock noon June 26, 1917, for
\$195,000 5 per cent. "General Improvement
and Paving Bonds."

Said bonds to be dated January 1, 1917, in
denominations of \$500, bearing interest from
date at the rate of 5 per cent. per annum,
payable annually on January 1 of each year,
and shall be payable to bearer at the office
of the Treasurer of the City of Martinsburg,
thirty-four years after date, and redeemable
at any time after twenty years.

Bids must be accompanied by a certified
check payable to the City of Martinsburg,
W. Va., for 5 per cent. of the amount of
each bid submitted. No bids will be accepted
for less than par and accrued interest. The
right to reject any and all bids is reserved
by the Commissioners.

JNO. T. NADENBOUSCH, Secretary.
Commissioners of the City of Martinsburg.

Bids close June 12, 1917.

Road Improvement

STATE OF MARYLAND.
STATE ROADS COMMISSION.
NOTICE TO CONTRACTORS.

Sealed proposals for the following:

Contract No. W-16, WASHINGTON AND
FREDERICK COUNTIES.—Grading and
draining Harper's Ferry Road—Knoxville
to Harper's Ferry, 3.51 miles.

Contract No. W-17, WORCESTER COUN-
TY.—Grading and draining Poconoke to
Stockton Road, 2.45 miles.

Contract No. Co-8, CAROLINE COUNTY.—
Building one section of road through
Greensboro, about .65 of a mile in length.
(Concrete.)

Contract No. T-11, TALBOT COUNTY.—
Building one section of road from Cla-
borne to St. Michaels, about 4.63 miles in
length. (Concrete.)

Contract No. 049-E, CECIL COUNTY.—
Building two sections of gravel roadway
between Northcott and Elkton, 0.26 and
0.57 miles in length, to be surfaced with
concrete.

UNDER FEDERAL AID ACT.
Contract No. P-16, PRINCE GEORGE'S
COUNTY.—Building one section of De-
fense Highway from Bladensburg toward
Annapolis, about 3.25 miles in length.

Contract No. F-29, FREDERICK COUNTY.—
Building one section of road from end of
Turnpike south, about 2.01
miles in length.

Will be received by the State Roads Com-
mission at its offices, 601 Garrett Building, Bal-
timore, Maryland, until 12 M. on the 12th
day of June, 1917, at which time and place
they will be publicly opened and read.

Bids must be made upon the blank form
contained in the book of specifications. Spec-
ifications and plans will be furnished by the
Commission upon application and cash
payment of \$1, as hereafter no charges will
be permitted.

No bids will be received unless accom-
panied by a certified check for the sum of
Five Hundred (\$500) Dollars, payable to the
State Roads Commission.

The successful bidder will be required to
give bond and comply with the Acts of the
General Assembly of Maryland respecting
contracts.

The Commission reserves the right to re-
ject any and all bids.

By order of the State Roads Commission
this 25th day of May, 1917.

FRANK H. ZOUCK,
Chairman.

CLYDE H. WILSON,
Secretary.

Bids close June 2, 1917.

Improved Roads

The Road Commissioners of Wilkes Town-
ship, Johnston County, N. C., will let bids
on June 2, 1917, for the construction of im-
proved roads in said township. Plans and
specifications may be obtained upon applica-
tion to E. P. Lore, Engr., Smithfield, N. C.

Bids close June 5, 1917.

Sand Clay Road

Yadkinville, N. C.

The Road Commissioners of Yadkin
County, N. C., will contract to the lowest
bidder all the sand-clay roads authorized
under the law, being about 27 miles, on
June 5.

Conditionally on the sale of said bonds.
By order of the Board this May 8.
H. P. WOODRUFF, Chairman.
E. C. MAYBERRY, Secretary.

Bids close June 15, 1917.

Street Paving

Sealed proposals will be received by the
Board of Mayor and Aldermen of the City
of Cleveland, Tennessee, at the office of
Elmo Bartlett, City Recorder, up to 12
o'clock M. of June 15, 1917, for approximately
51,000 square yards of street paving, asphalt,
asphaltic concrete, cement concrete, or other
types, grading, curbing, storm sewers, etc.
Proposals must be accompanied by a cer-
tified check or an approved bond in the sum
of 10 per cent. of the whole work, based on
the engineer's estimates of quantities and
the contractor's unit bids.

Plans and specifications can be seen at the
office of the Recorder or of the City Engi-
neer in the City Hall at Cleveland, Tennes-
see, and copies of the specifications will be
furnished to bona fide bidders gratis for the
purpose of submitting bids. Copies of the
plans, profiles and standard drawings can
be obtained from the Recorder on the de-
posit of one dollar (\$1), which deposit will
be refunded upon their return in good con-
dition.

GEORGE L. HARDWICK,
JOHN B. FILLAUER,
WALTER FRANKLIN,
Committee.

SAMUEL D. NEWTON,
City Engineer.

Bids close June 28, 1917.

Highway Work

Public notice is hereby given, as provided
by Act No. 183 of the Acts of the General
Assembly of the State of Louisiana for the
year 1914, as amended by Act No. 199 of the
Acts of the General Assembly of the State
of Louisiana for the year 1916, that bids will
be received at the office of the Board of Su-
pervisors of Road District No. 2 of the Par-
ish of Allen, State of Louisiana, in the Cal-
casieu National Bank of Southwest Louisi-
ana Building at Kinder, Louisiana, at 10
o'clock A. M. on the 28th day of June, A. D.
1917.

Notice is also given that the bids received
upon said date will be opened and publicly
read by said Board of Supervisors in their
said office on the 28th day of June, A. D.
1917, at 10 o'clock A. M.

The character and extent of the work to
be covered by said bids will consist of dredg-
ing, grading, grubbing, clearing, draining,
bridging and constructing all of the pro-
posed new highway work shown on the in-
dex maps of the said Road District No. 2,
Parish of Allen, and more fully and defi-
nitely illustrated on the corresponding loca-
tion and profile maps and the detail drawings
now in the possession of the Secretary of
said Board at Kinder, and also of W. L.
Stevens, 312 Whitney-Central Bank Building,
New Orleans, La.

These highways lead from Kinder to Cal-
casieu River, 120 stations, designated as Di-
vision A; Kinder to Lauderdale, 27.62 sta-
tions, designated as Division B; Kinder to
Jefferson Davis Parish Line, 240 stations,
designated as Division C; Kinder to Oberlin
Ward Line, 300.73 stations, designated as
Division D; Kinder to Indian Village, 50.83
stations, designated as Division E; Road No.
1, 182.86 stations; Road No. 2, 210 stations;
Road No. 3, 154.64 stations, designated as St.
Elmo District.

A separate bid must be made on each of
the above divisions and upon each separate
road in the St. Elmo District, and on the
bridge and culvert work in each division,
and each road in the St. Elmo District.

Every bid shall be accompanied by a cer-
tified check of the bidder in an amount equal
to five per cent. (5%) of the total amount
of the bid, which check will be forfeited to
the Road District should the bidder to whom
the contract is awarded fail to enter into the
contract required within ten days after
notice to do so from said Board of Super-
visors. The checks of all unsuccessful bid-
ders will be returned after the contract is
awarded.

All bids submitted shall be addressed to
the Board of Supervisors of Road District
No. 2 of the Parish of Allen.

The right to reject any and all bids is
hereby reserved by said Board of Super-
visors.

The successful bidder will be required to
furnish bond as provided by law.

Detailed information and specifications
can be obtained from W. L. Stevens, Archi-
tect and Engineer, 312 Whitney-Central Bank
Building, New Orleans, La.

BOARD OF SUPERVISORS.

By L. W. MANUEL,
President.

Attest:
GEORGE M. KING, JR.,
Secretary.

PROPOSALS

SEWERS WATER-WORKS ELECTRIC LIGHT PLANTS BRIDGES

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close July 2, 1917.

Highway

Sealed proposals, addressed to the County Commissioners of Frederick County, and endorsed "Proposals for building a section of State-aid highway in Frederick county," upon or along the Lewistown-Creagerstown road, for a distance of about 4.38 miles, will be received by the County Commissioners of Frederick County at their office in Frederick City, Md., until 1 o'clock P. M. on the second day of July, 1917, and at that time and place will be publicly opened and read.

All bids must be made upon blank forms to be obtained of the State Roads Commission at its office, 601 Garrett Building, Baltimore, Md., must give the prices proposed both in writing and in figures, and must be signed by the bidder, with his address.

Each bid is to be accompanied by a certified check for two hundred dollars (\$200), payable to the County Commissioners of Frederick County, said check to be returned to the bidder unless he fails to execute the contract should it be awarded to him. Plans can be seen and forms of specification and contract may be obtained on cash payment of one dollar (\$1) at the office of the State Roads Commission, Baltimore, Md. The County Commissioners of Frederick County reserve the right to reject any and all proposals.

By order of the County Commissioners.
F. M. STEVENS, President.
H. L. GAVER, Clerk.

Bids close June 26, 1917.

Metal Surface Roads

Bids will be received by the Board of Supervisors of Acadia Parish, Louisiana, for the construction of approximately twenty

miles of metal surface roads, according to plans and specifications now on file with the Secretary of the above-named Board. Bids will be received until noon June 26, 1917, at Crowley, Louisiana.

Bids close June 15, 1917.

Road Improvement

Sealed bids for improving three roads in Lawrence County, Tenn., will be received by the Lawrence County Road Commission until 2 P. M. Friday, June 15, 1917, and at that time publicly opened at the Courthouse in Lawrenceburg, Tenn.

Proposed work to be done is approximately:
Road No. 2.—Pulaski Road—23½ miles to be graded and drained and 11 miles of chert surfacing. \$60,000.

Road No. 3.—Ethridge to Cross Roads—3¼ miles to be graded and drained and surfaced with chert. \$10,000.

Road No. 4.—Henryville Road—1½ miles to be graded and drained. \$18,000.

Certified check for \$3000 must accompany bids for all or any part of the work. The right is reserved to reject any or all bids. For plans, specifications and full information address R. M. Barker, Engineer, Lawrenceburg, Tenn.

E. G. PARKES, Secretary.
Lawrence County Road Commission.

Bids close June 16, 1917.

Road Construction

Until 12 o'clock noon on June 16 the County Court will receive proposals at Kingwood, W. Va., for the construction of the following roads in Portland District: Corinth Road, No. 1, from end of brick at Terra Alta to the Maryland line, 3.9 miles of 15-ft. concrete road; Kingwood Road, No. 3, from the end of brick at Terra Alta to the Caddell Bridge, 6.9 miles of 15-ft. concrete road; St. Joe-

Brandonville Road No. 2, from Pleasant District line through Albright and St. Joe to Caddell Bridge, 5.7 miles of 15-ft. concrete road; alternate route, Terra Alta-St. Joe Road from end of brick at Terra Alta to St. Joe, 6 miles of 15-ft. concrete road.

For further information address County Clerk or H. E. Wilhelm, Dist. Engineer, Kingwood, W. Va.

Dredging

Bids are invited for dredging channel and filling in pond at "Harbor Oaks," Clearwater, Fla. Particulars and specifications may be obtained at the office of Donald Alvord, owner, "Harbor Oaks," Clearwater, Fla.

Bids close June 5, 1917.

Drainage Canals

Sealed proposals will be received by the Board of Commissioners of Everglades Drainage District at the office of the Board at Tallahassee, Florida, until 10 A. M. June 5, 1917, and then opened and publicly read, for the following construction:

1. A Drainage Canal known as the Dania Canal.
2. The improvement of the Miami Canal between the lock and the junction with the South New River Canal.
3. The improvement of the South New River Canal.

All in the Everglades Drainage District of Florida. The Board reserves the right to reject any or all bids.

Information on application.
F. C. ELLIOT,
Chief Drainage Engineer.
Tallahassee, Florida,
May 15, 1917.

Bids close June 12, 1917.

Sewer System and Disposal Plant

Sealed proposals will be received by the Board of Sewer Commissioners First Sewer District, New Iberia, La., at the Mayor's office, New Iberia, La., until 7:30 P. M. Tuesday, June 12, 1917, for furnishing all materials and building a Sanitary Sewer System and Sewerage Disposal Plant.

Each bid must be accompanied by a certified check for an amount equivalent to three per cent. (3%) of the total price asked in the proposal, made payable without qualification to Jules Dreyfus, President Sewer Commission, as an evidence of good faith.

Plans and specifications will be on file at the office of the Secretary of the Sewer Commission, First Sewer District, in New Iberia, La., and the office of the Engineer, Xavier A. Kramer, Magnolia, Mississippi, and copies of the specifications, form of proposals, etc., will be mailed upon application to the Engineer when accompanied by a check for \$10 to guarantee their return within thirty (30) days after the letting.

The right is reserved to reject any or all bids. This done by order of the Board of Sewer Commissioners, First Sewer District, New Iberia, La.

CHAS. L. PROVOST,
Secretary.

Bids close June 11, 1917.

Steel Bridges

Bids will be received by the Fiscal Court of Knox County, Barbourville, Ky., until one o'clock June 11, 1917, for one 43-foot and one 45-foot steel bridge. Plans on file at the County Court Clerk's office.

INDUSTRIAL NEWS OF INTEREST

Established Office at Charlotte.

Scott & Williams, Inc., builders of knitting machinery, 365 Broadway, New York, announce that they have established a Southern office at 1006 Realty Bldg., Charlotte, N. C., to facilitate the handling of correspondence and the firm's business in the South in general.

Moore Moist Air Kilns Installed.

Work on the new plant of the Bollinger-Franklin Lumber Co., Kosciusko, Miss., is being rushed, and it is expected that it will be ready for operation in about two months. Thomas Coleman, formerly of Vredenburgh, Ala., is the mill builder. The officers of the company are S. H. Bollinger, president; B. H. Bollinger, secretary and treasurer, both of Shreveport, La., and A. L. Franklin, vice-president and manager. The directors include the officers, together with G. J. Pope of Chicago and H. E. Allen of Hattiesburg, Miss. They are building a large battery of drykilns, using the Moore moist air system.

Advantages of Electric Industrial Trucks.

"Electric Industrial Trucks, Tractors, Trailers," Bulletins Nos. 1, 2 and 3, are published by the Lansing Company of Lansing, Mich., whose motto is "Keep Your Product on Wheels." They tell about and illustrate with adequate pictures the many advantages of these devices at industrial plants for handling products either in bulk, boxes or bags. They are also employed for conveying other materials in bulk such as earth, ore, coal, grain, etc., under conditions demanding that a large tonnage must be moved in a short time. At railway and marine terminals they are likewise invaluable, or in warehouses. The company has studied electric power trucks from every point of view and is prepared to provide them so as to be suitable for any kind of work.

Rich Timber Lands to be Sold.

It is announced that 65,000 acres of timber lands in Wilkes, Watauga and Caldwell counties, N. C., belonging to the Grandin Lumber Co., will be sold at Wilkesboro, N. C., on June 25 under a decree of the United States District Court at Greensboro, the company being in a receivership with W. J. Grandin as receiver. The action was brought against the company and the receiver by the Central Trust Co. of Illinois, and Wm. T. Abbott, Trustees. The lands are composed of 460 tracts, which contain chestnut, oak, pine, poplar and other timber.

There is also a valuable mill on the property. W. B. Council of Hickory, N. C., and R. W. Winston of Raleigh, N. C., were appointed commissioners to conduct the sale. Further particulars will be found in the advertising columns.

Newman Equips Several Theaters.

The Newman Manufacturing Co. of Cincinnati, which makes a specialty of brass railings, poster frames, easels and ticket choppers for theaters, has recently installed all of the brass railing work required around the orchestra pit, the auditorium boxes, lodge boxes, balcony and lobby in the New Oakland Theater, Pontiac, Mich. It is said that the management selected the Newman Co. to do this work because of its high reputation among theater interests, having equipped many of the best theaters throughout the country. The company, by the way, says that the prices of brass poster frames and easels has advanced only 15 per cent. during the last three years, and it has developed a new style of inexpensive brass railing made of steel-lined brass tubing, which is considerably cheaper than the regular brass railing; it has given excellent satisfaction. Headquarters of the company are at 717-721 Sycamore St., Cincinnati, and the branch is at 68 W. Washington St., Chicago. S. J. Newman, Cincinnati, is secretary. Since the work described was done the Newman Company has installed the brass work in the Strand, the Mary Anderson, the Alamo and the Rex theaters, all at Louisville, Ky.

"Sanisep" Sewage-Disposal Installations.

The Erwin Cotton Mills Co., Durham, N. C., recently awarded a contract to the Cement Products Co., 1013-14-15 Murchison Bldg., Wilmington, N. C., to equip more than 1000 mill houses with the "Sanisep" system of sewage disposal, which the contractor manufactures. This system, which may be used with or without running water, has attracted much attention through the South and East, and a large number of cotton mills and other manufacturing plants have adopted it. Among the installations of "Sanisep" recently made are the following: Milstead Manufacturing Co., Milstead, Ala.; Grantville Hosiery Mills, Grantville, Ga.; Maple and Hamer villages of the Dillon Mills, Dillon, S. C. (the Dillon village having been equipped some months ago); Holland Mills, Gastonia, N. C.; the new village of the Roanoke Mills Co., Roanoke Rapids, N. C. (village equipment and

large tank built in place, the old village having been equipped a year ago); United States Coal & Coke Co., Gary, W. Va.; Crystal Block Mining Co., Welch, W. Va.; Verner Coal & Coke Co., Pittsburgh, Pa.; Bessemer Coal & Coke Co., Russellton, Pa.; Portsmouth schools, Portsmouth, Va.

TRADE-LITERATURE

Tarvia Pictured and Described.

Devoted to the interests of Tarvia are two beautiful booklets recently issued by the Barrett Company, manufacturers of this standard road building product. One of them tells of "How a Tarvia Macadam Roadway is Constructed," and the other of how to secure durable, dustless, and automobile proof roads at low cost. Each is beautifully and handsomely illustrated with half tones of road scenes in various parts of the country, although the first book relates principally to the building of a certain road and it is pictured in the different stages of construction. Two small folders, which are likewise illustrated, are also issued by the Barrett Company. One of these is about Tarvia B and the other, Tarvia X. The particular qualities of each product is fully described.

Riveting Machines.

Portable pneumatic compression and hammer riveting machines for structural bridge and railroad work, boiler, tank and stack construction are the subjects of a new catalog just issued by the manufacturers, the John F. Allen Co., 372 Gerard Ave., New York, which has been producing riveting equipment since 1872 when the business was established. The publication is finely printed and illustrated, the pictures being large and true. All the machines are built upon the interchangeable system from standard gauges, jigs and the templates and the company keeps a full line of finished parts of all sizes in hand. The catalog gives a description of each machine and its dimensions.

All Kinds of Building Construction.

A most interesting folder, presenting composite photographs covering a very large number of buildings erected has been issued by Westinghouse Church Kerr & Co., Inc., engineers and constructors, 37 Wall St., New York. The broad scope of this concern's activities and the variety of construction which it does are shown in these illustrations, in which may be seen an electric railway, a girls' school, an oil-burning boiler plant of 36,000 horse power, an eight-story reinforced concrete indus-

trial building, a loading dock, a concrete locomotive roundhouse, a ten-story hotel, a locomotive erecting shop with 240,000 square feet of floor space, a complete cartridge plant, and a power plant containing boilers of 2365 horse power each, besides many other structures. There was omitted \$18,000,000 of work done for one client because the corporation only did a part of the total work for him.

FOR SALE MACHINERY SUPPLY COMPANY R. S. Petty, Mgr. Greensboro, N. C.

Machine Shop Tools

LATHES:
16"x10" Fay & Scott Hollow Spindle, 1½" hollow spindle, 14" 4-jaw chuck, complete equipment.
16"x10" Forsythe Lathe and 4-jaw Chuck, otherwise complete.
24"x14" New Haven Lathe, swings full 26" overweights, complete with chuck.
16"x6" Flaker with chuck, otherwise complete.
30"x14" Perkins standard equipment, not including chuck.
Extra 4-jaw Chuck, independent chuck.

Milling Machines

No. 4 Smith & Gravin.
DRILL PRESSES:
26" Barnes power and hand feed, back geared.
30" Buffalo Drill Press, back geared, power and hand feed.
42" Prentice Drill Press.
SHAPERS:
14" single back-geared step-toe Shaper.
PLANERS:
30"x36" Tement Planer.
36"x48" Planer (no name plate).

Bolt and Pipe Machines

No. 2 Williams, Serial No. 1250, with countershaft and dies.

Air Compressors

6x12 steam-driven Chicago Compressor; is arranged for belt drive also, connected to 36"x6" air receiver.
1-ton Chain Hoist: good condition.
Large Metal Cut-Off Saw, Q. & C., with three 27" saws and saw summer.
7-horse-power Vertical Gasoline Engine.
Imperial Welding Outfit, slightly used, in convenient carrying case.
1 20-horse single-phase Motor for 200 volts.
1 10-horse, 3-phase, 60-cycle, 220 volts, 1300 R. P. M. Westinghouse Motor.
1 12" power Q. M. S. Hack Saw.
1 Emery Stand with countershaft and 3 full-sized emery wheels.
PUMPS: Belt Driven:
1 Gould's Triplex, T. & L. pulley, 5"x8" cylinders.
1 Davis Triplex, T. & L. pulley, 6"x6½" cylinders.
Hydraulic Wheel Press.
Axle Lathe.
Wheel Boring Mill, 48".
Pulley Lathe.
42" Vertical Boring Mill.

Write for wants in Corliss engines, high-pressure boilers up to 300 H. P. Also have a few slide-valve and automatic engines and 100-lb. boilers up to 60-horse-power.

Machinery, Equipment and Supplies

WANTED

WANTED MOTORS and DYNAMOS

We pay highest spot cash prices
Write at once what you have for sale

QUICK ACTION

NATHAN KLEIN & CO.

We Also Buy Belting and Machinery 208 Centre St., N. Y. C.
\$150,000.00 Worth Ready for Immediate Delivery

DROP HAMMERS WANTED

1000, 1500 and 2000-pound drop or steam drop hammers in good condition. Must not be over two years old.

THE D. WILCOX MFG. CO.
Mechanicsburg, Pa.

BUILDING MATERIALS

M. E. RANDOLPH
Dante, Va.

wants catalogues, samples and prices on general building material.

WANTED

Macadam and Tandem Roller. Must be in good condition.

Address Box 795

Care Manufacturers Record Baltimore, Md.

WANTED

20 tons 40-pound Steel Relaying Rails, with angle bars.

LAFOLLETTE COAL & IRON CO.
LAFOLLETTE, TENN.

WANTED

Old Brake Shoes.
Grate Bars.
Cast-Iron Turnings.
Stoves.
Small miscellaneous Scrap Iron of all kinds.
Quote prices f. o. b. Lafollette, Tenn.

LAFOLLETTE COAL & IRON CO.

WANTED TO BUY

6,000 ft. of second-hand 6" cast iron water pipe. Address

A. J. DOSSETT Waco, Texas

WANTED

Used Ackley Abbey

Ring Splitting Machine

HOUPERT MACHINE CO.

351 West 52d St. New York, N. Y.

Wanted to Buy

One Hoisting Engine and Boiler, double cylinders, 9x10" to 10x10", double drum, with friction clutch. One Hoisting Engine, double cylinder, 8x8" to 9", single drum, with friction clutch.

DORCHESTER LUMBER COMPANY
Badham S. C.

WANTED

30-Pound Relaying Rails

Can use 100 tons or more. Please give best price, full description and location.

LOGAN VALLEY STORE CO.
Harrison Bldg., Phila., Pa.

WANTED

Locomotive Crane for Clam Shell Work.

Write "LOCO"

Manufacturers Record Baltimore, Md.

WANTED

Second-hand Stiff Leg Derrick, 36' mast, 50' boom, with bull wheel attachment. State price and condition.

Address Oscar Barnett Foundry Co.
Irvington, N. J.

If you wish to keep posted on the progress of the South read the
MANUFACTURERS RECORD

Price \$4.00 a year, or six months for \$2.00

WANTED TO BUY

One 80 to 100 H. P. 230-volt direct current motor, 1200 R. P. M., new or second-hand, in first-class operative condition, complete with sliding rail-starting box and rheostat to match.

One 35 H. P. starting box with oil switch to match, for 2300-volt 60-cycle 3-phase current.
One 2300-volt 60-cycle 3-phase wattmeter.
Best prices to be quoted.

Union Central Light & Power Co. Hubbard, Texas

Wanted—Two Water Tube Boilers

Approximate capacity 500 H. P. each. Must stand insurance inspection and be down draft if hand fired. If stokers, chain grates preferred. In offering state age, make and where located.

MONSANTO CHEMICAL WORKS
1800 S. 2d Street St. Louis, Mo.

WANTED

One 5-ton and one 15-ton Standard-Gauge Locomotive Crane. One 32 or 34 Kemp Smith Plain Miller.

E. G. QUICKEL & CO.
YORK, PA.

WANTED

2 18-ton Locomotives.
30 four or six-yard Cars.

Address "B. O. C."

Manufacturers Record Baltimore, Md.

Wanted

10 Frogs and Switches

For No. 25 Relaying Rails

Cambro-Clinton Mining Corporation
209 N. 21st St. Birmingham, Ala

FOR SALE BY

MACHINERY SUPPLY COMPANY

R. S. PETTY, Manager

GREENSBORO, N. C.

BOILERS

Item Nos.

- 1—72x18, 110-pound pressure full front boiler, 150 H. P.
- 2—60 H. P. Atlas boiler with stack and usual fixtures.
- 3—60, 80, 100, 125 and 150 H. P. boilers, in good condition, but would be useful for about 80 pounds pressure for heating, dyeing, etc., at attractive prices. On these items make your wants known.
- 4—25 H. P. return tubular boiler, half front, in good condition.
- 5—30 H. Farquhar boiler, full front, usual fittings.
- 6—200 H. 72x20 Cole boiler, 125 pounds pressure, with stack.
- 7—35 H. P., size 44x12, 125-pound boiler, with I-beam suspension, stack and fixtures.
- 8—106 H. P. vertical water-tube boiler, 150 lbs. working pressure.
- 9—125 H. P. Brownell return tubular boiler, size 72x16; Inspection Company insures 125 pounds pressure.
- 10—100 H. P. locomotive boiler, in good condition.
- 11—125 H. P. Ames boiler, 110 pounds steam pressure, usual fixtures, no stack; a No. 1 report from the Casualty Company.
- 12—50 H. P. Atlas boiler, 100 steam pressure, half front, water column, steam gauge, rear arch bars, grate rests, injector, etc.; no stack; been used about 2 years; in perfect condition.
- 14—30 H. Peerless 30 H. P. locomotive boiler for 125 pounds pressure, with usual fixtures and stack.

CORLISS ENGINES

- 15—12x24 Harris right-hand standard wheel.
- 16—12x30 Hamilton left-hand, wheel 10'x 16", 3 or 4 years' service, very fine shape, style B, heavy girder, board guides.
- 17—12x36 Green left-hand, underrun wheel, 9' in diameter, grooved for 7 1/2" ropes.
- 18—14x30 right-hand Bates, 13x20" wheel; an excellent, very little used engine.
- 19—14x42 Lane & Bodley, left-hand, 12x19 wheel.
- 20—16x36 Hamilton rope drive 12' wheel, 10 1/4" ropes with driven wheel and engine; complete.
- 21—18x42 Lane & Bodley, hand wheel 14'x 23", left-hand.
- 22—14x42 Weatherall right-hand, fine engine.
- 23—14x36 Atlas engine, right-hand, used 15 years.
- 24—15x36 Harris, in excellent condition, right-hand.
- 25—20x42 Cooper, right-hand, standard wheel.
- 26—24x48 Allis flywheel, 18x37, left-hand; very fine engine.
- 27—16 and 30x36 compound condensing engine, made by Rice & Sargent, with condensing apparatus complete.
- 38—14x44 Cooper twin engine, 14'x15" wheel.
- 39—18x42 Frick twin engine.
- 40—14x36 Philadelphia twin engine.
- 41—Boiler feed pumps; 3 or 4 duplex steam drives.

FIRE PUMPS

42—14x12 Underwriter, 500 gallons per minute.

POWER PUMPS

- 102—Gould's Triplex T. & L. Pulley, 5x8" cylinders.
- 103—Davis Triplex T. & L. Pulley, 6x6 1/2" cylinder.

ENGINES—Slide Valve, Ball Type Governors

- 28—8x12 center crank Ladell engine for 25 H. P.; first class; used only three months.
- 29—11x18 twin engine, made by Houston, Stanwood & Gamble Co.
- 30—30 H. P. center crank engine.
- 31—15 H. P. center crank automatic governor.
- 35—10x14 H. S. & G. class A, right-hand side crank, 40 H. P.; complete with steam exhaust pipe.
- 36—12x20, 75 H. P. H. S. & G. side crank.

AUTOMATIC HIGH SPEED ENGINES

- 32—10x16 left-hand side crank Atlas engine, wheel 60x14, 75 H. P.
- 33—12x15 Skinner belted automatic engine with automatic oiling system from 100 to 105 H. P.
- 37—40 H. P. 9x10 automatic Buffalo engine.

FEED WATER HEATERS

- 71—Cooper 300 H. P. Heater.
- 72—Simms 300 H. P. horizontal type heater, size 24x48".
- 73—Horizontal feed water heater, 36"x8", 7" steam.

FOR SALE

For lack of use the following used wood car-building machinery:

- One Fay & Egan Universal Car Tenoning Machine No. 5.
- One Fay & Egan Automatic Car Gaining Machine No. 3.
- One Fay & Egan Automatic Hollow-Chisel Morrising and Boring Machine No. 3.
- One Fay & Egan Radial Horizontal Boring Machine, one spindle.
- One Fay & Egan Three-spindle Vertical Car Boring Machine.

Twelve hundred dollars for the lot f. o. b. cars Richmond, Va. Can be inspected.

Address THE TREDEGAR CO., Richmond, Va.

- 74—500 H. P. Webster open type heater and separator, vertical type, size 34"x69".
- 75—250 H. P. Cooper coil heater, supposed to be a National.
- 76—100 to 150 H. P. heaters can be usually supplied on call.

HOISTING ENGINES

- 77—12 H. P. double cylinder, slug drum, with boiler, some cable and two elevators; Orr & Sombour.
- 78—Ryan-McDonald D. C. D. D. hoisting engine, no boiler, reversible motion, splendid condition.

MOTORS AND GENERATORS

- Single Phase, 60-Cycle
 - 42—1 H. P. General Electric, 60-cycle, 110 interchangeable, 220 volts.
 - 43—1 H. P. Westinghouse, 110 volts, E. M. F.: 100 speed, 1600 alternations 7200.
 - 44—20 H. P. Wagner, 200 volts, type A. C. Model No. 10, 1165 R. P. M.
 - 45—3 H. P. Wagner, 110 volts.

- 2-Phase, 60-Cycle, 110 to 220 Volts
 - 46—3 H. P. General Electric, 110 volts, 1800 R. P. M.
 - 48—7 1/2 H. P. Stanley, 220 volts.
 - 49—20 H. P. Westinghouse, 220 volts, 1125 R. P. M., sliding base and starter.
 - 50—5 H. P., 220 volts, 1120 R. P. M., type C.

- 1-Phase, 60-Cycle, 220 Volts
 - 51—1 H. P. General Electric, 1800 R. P. M.
 - 52—2 H. P., same voltage.
 - 53—5 H. P. Westinghouse, 1800 R. P. M., with oil switch.

- 54—7 1/2 H. P. Westinghouse, 1800 revolutions.
- 55—3 H. P. Westinghouse, 840 revolutions.
- 56—10 H. P. General Electric, sliding base, no starter.
- 57—5 H. P. Allis-Chalmers, 1150 R. P. M.
- 58—35 H. P. General Electric, form L, 220-volt, 660 R. P. M.
- 59—10 H. P. General Electric, form L, 900 R. P. M.
- 60—25 H. P. General Electric, form L, 200-volt, 660 R. P. M.
- 61—15 H. P. General Electric, form L, 200-volt, 720 R. P. M.
- 62—50 H. P. General Electric, 220-volt, 860 R. P. M., form L.

GENERATORS

- 63—Triumph, 60 amperes, 125 volts, 1400 revolutions, 7 1/2 K. W.
- 64—Holtzer Cabot, 60 amperes, 110 volts, 1400 R. P. M., 7 1/2 K. W.
- 65—Switchboard, 36"x48".
- 66—Deghal, 115 volts, 22 amperes, type No. 6, speed 900, 2 1/2 K. W., with switchboard.
- 67—11 1/4 K. W. Westinghouse, 90 amperes, 1200 R. P. M., with switchboard.
- 68—45 K. W. Generator.
- 69—25 K. W. Westinghouse, 125 E. M. F., 200 amperes, 975 R. P. M.
- 70—General Electric, 25 K. W., type M. P., 200 amperes.

TRACTION ENGINES

- 79—15 H. P. Geisler, good condition.
- 80—20 H. P. Case Tractors and one Sergeant sawmill and saw belt, log cars, etc.; or tractor may be bought separately from the other equipment.
- 82—20 H. P. Case Steam Tractor and steel wind stacker thresher; engine or separator can be bought separately.

OIL TRACTORS

- 84—8-16 H. P. Avery, nearly new.
- 85—8-16 H. P. I. H. C. Mogul Tractors, one trip.
- 86—12-25 I. H. C. Oil Tractor with 4-disc plow outfit.

GASOLINE ENGINES

- 87—Cook 7 H. P. vertical gasoline engine.
- 89—10 H. P. I. H. C. horizontal, famous type, and miss governor, kerosene engine.
- 90—4 H. P. Fairbanks-Norse kerosene engine.
- 91—Olds 18 H. P. stationary gasoline engine; a good one.
- 92—30 H. P. Alimo kerosene engine; used only 12 months.
- 93—4 1/2 H. P. Olds gasoline engine, 12" F. C.
- 94—15 H. P. I. H. C. Mogul kerosene engine.
- 95—25 H. P. I. H. C. Mogul kerosene engine.
- 96—15 H. P. Famous I. H. C. gasoline engine.
- 97—10 H. P. I. H. C. kerosene portable engine, 20" F. C. pulley.
- 98—40 H. P. Miami kerosene engine, good as new.
- 99—50 H. P. Munsey oil engine; an extra fine engine, very economical, burning crude oil as well as kerosene.

AIR COMPRESSORS

- 100—6x12 steam-driven, Chicago pneumatic water cool; also arranged for running by belt drive, if desired, from counter-shaft.
- 101—12x7 1/2x10 Sullivan air compressor.

COMPLETE MACHINE SHOP

For Railway Contractor.
Equipment nearly new,
Woodworking and Planing Mill

Up-to-date Equipment.
Write for full details.
HENRY POTTS & CO. Philadelphia
650 Real Estate Trust Bldg.

IRON PLATES

FOR SALE

500 tons 3-16 to 3-18 flat tank plates, 4 ft. wide, 9 ft. long, good condition. Edges punched only.

R. LEBOW, care Norval Hotel
LIMA, O.